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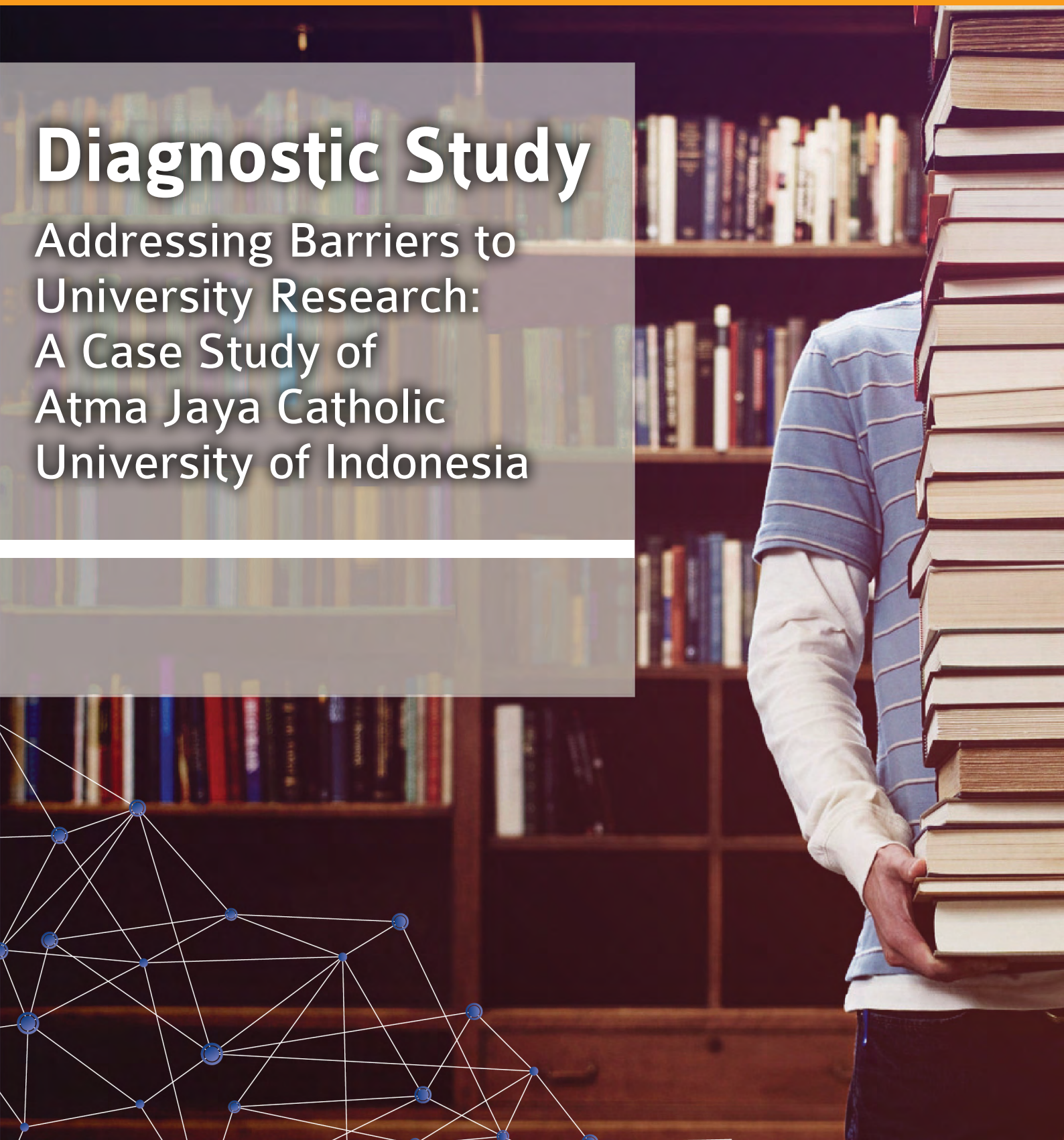

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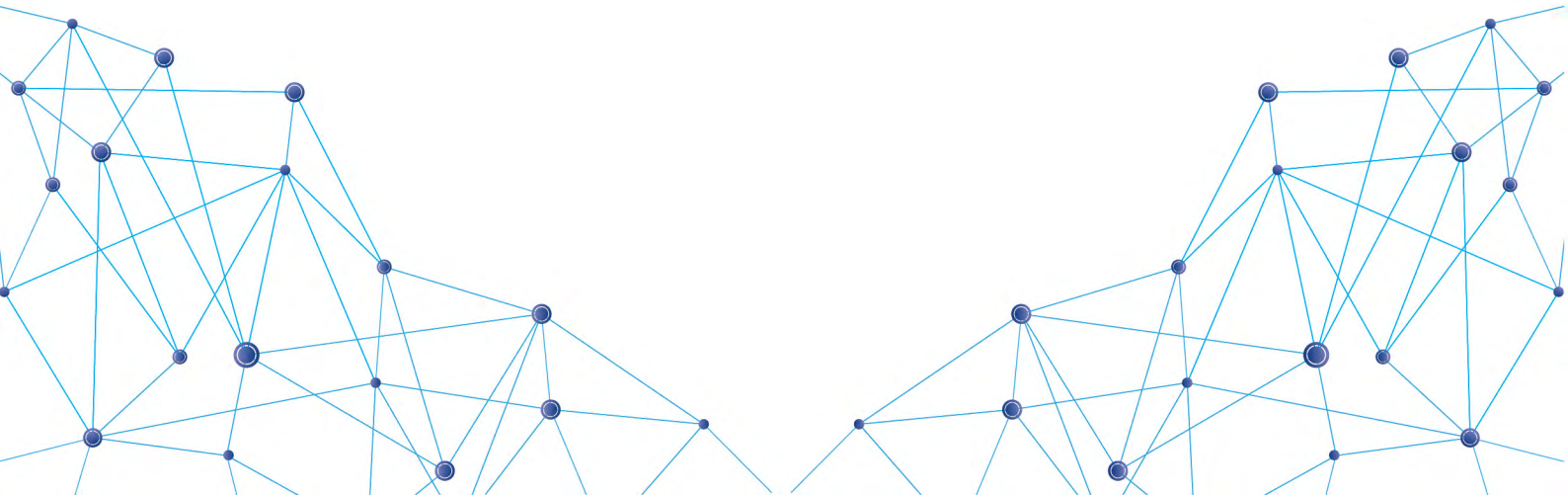
By:
Hana Panggabean, Ignatius Darma Juwono, Clara R.P. Ajisuksmo,Evi Sukmaningrum, Luciana, Vivitri Dewi

April 2017



Addressing Barriers to University Research: A Case Study of Atma Jaya Catholic University of Indonesia

The authors' views expressed in this publication do not reflect the views of the Government of Australia, Government of Indonesia, and the Knowledge Sector Initiative. All entities will not accept any liability arising as a result of this publication.

Foreword

First and foremost we thank God for His grace and guidance throughout the preparation of this paper, the Diagnostic Study on Addressing Barriers to University Research: A Case Study of Atma Jaya Catholic University of Indonesia (Unika Atma Jaya). This study was supported by the Knowledge Sector Initiative (KSI). KSI facilitated focus group discussions and workshops involving researchers from research centres of public universities (PTN) and private universities (PTS) as well as relevant government decision makers on university research. We thank the parties for their support and contribution to this study. The information that we gained in the process is valuable for the Indonesian education sector in general, and university research in particular.

Research is one of the three functions of a university as set forth in Article 20 Paragraph 2 of the National Education System Act. However, there are many barriers to research by university lecturers. These barriers can be funding, or lack of time and capacity to conduct research and publish the results in reputable national and international journals.

The situation in a PTS is more complex. As a private institution that has no access to public funding, a PTS must finance all activities concerning the performance of the three university functions (*Tri Dharma*). For a PTS, tuition fees are the main source of income that enable its operational activities. The number of students enrolling is an important concern as it directly influences the operational continuity of the institution. Further, a PTS also has to factor lecturers' pay into its cost component, hence the number of lecturers holding permanent teaching positions is also important for management. Consequently, research funding has become a central issue. Research has not been a priority and lecturers tend to focus on teaching. They have no time to develop a research proposal, conduct field studies or prepare the

findings to be published in scientific journals. Attractive incentives for research and publication have not been effective drivers of research productivity.

This study captures and reports the barriers that plague researchers in Unika Atma Jaya. In the past, Unika Atma Jaya applied a lecturer and researcher recruitment scheme. The researchers worked under our research centres, which are accountable to the foundation. Later, the research and community service institution, Lembaga Penlitian dan Pengabdian kepada Masyarakat (LPPM) was established as the umbrella institution of our research centres. It was formed in compliance with a government regulation that requires universities to have a research institution. The researchers, formerly working under their respective centres, were made lecturers and assigned to faculties and programs according to their scientific background. Unika Atma Jaya's recruitment scheme has changed since then. Today, we manage only two schemes of recruitment: teaching staff/lecturers and operational staff. The research centres under LPPM are still present. The staff members continue their research activities while juggling teaching in the classroom, inevitably shouldering a double burden.

This report seeks to inspire other PTS to follow our research function. We also hope that it can inform the Government's policy making on advancing research in Indonesia. To conclude, 'even Homer sometimes nods', thus we welcome any feedback on this report. We are aware that this report has limitations and we will be grateful for any constructive criticism to improve our work.

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Lembaga Penelitian dan Pengabdian kepada Masyarakat
Atma Jaya Catholic University of Indonesia

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Abbreviations and Acronyms

APTIK	:	Asosiasi Perguruan Tinggi Katolik (Catholic University Association)
ARN	:	Agenda Riset Nasional (National Research Agenda)
BKD	:	Beban Kerja Dosen (Lecturers' Workload)
FE	:	Fakultas Ekonomi (Faculty of Economics)
FH	:	Fakultas Hukum (Faculty of Law)
FIABIKOM	:	Fakultas Ilmu Administrasi Bisnis dan Komunikasi (Faculty of Business Administration and Communications Sciences)
FK	:	Fakultas Kedokteran (Faculty of Medicine)
FP	:	Fakultas Psikologi (Faculty of Psychology)
FPB	:	Fakultas Pendidikan dan Bahasa (Faculty of Education and Language)
FT	:	Fakultas Teknik (Faculty of Engineering)
FTB	:	Fakultas Teknobiologi (Faculty of Biotechnology)
JJF	:	Jenjang Jabatan Fungsional (Functional Position Level)
KBA	:	Kelebihan Beban Akademik (Academic Load Exceedance)

Kemenristekdikti	:	Kementerian Riset Teknologi dan Pendidikan Tinggi (Ministry of Research, Technology and Higher Education)
KSI	:	Knowledge Sector Initiative
LPA	:	Lembaga Penelitian Atma Jaya (Atma Jaya Research Institute)
LPPM	:	Lembaga Penelitian dan Pengabdian kepada Masyarakat (Research and Community Service Institute)
NIDK	:	Nomor Induk Dosen Khusus (Special Lecturer's ID)
NIDN	:	Nomor Induk Dosen Nasional (National Lecturer's ID)
PKBB	:	Pusat Kajian Bahasa dan Budaya (Centre of Language and Cultural Studies)
PKPM	:	Pusat Kajian Pembangunan Masyarakat (Centre of Community Development Studies)
PPA	:	Pusat Penelitian Atma Jaya (Atma Jaya Research Centre)
PPH	:	Pusat Penelitian HIV/AIDS (HIV/AIDS Research Centre)
PT	:	Perguruan Tinggi (University)
PTN	:	Perguruan Tinggi Negeri (State University)
PTS	:	Perguruan Tinggi Swasta (Private University)
SDM	:	Sumber Daya Manusia (Human Resource)
USPTO	:	United States Patent and Trademark Office
Unika Atma Jaya	:	Universitas Katolik Indonesia Atma Jaya (Atma Jaya Catholic University of Indonesia)

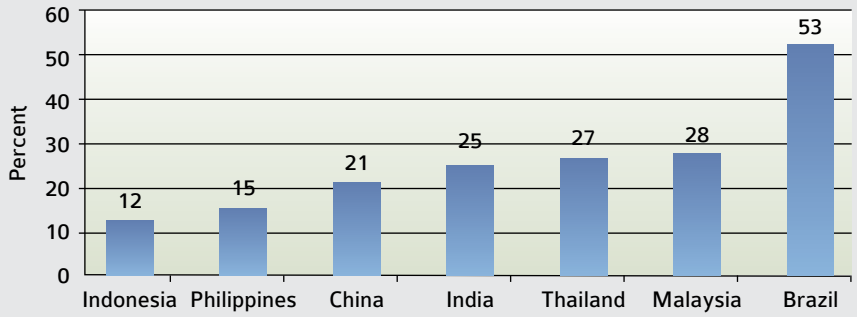
1 Introduction

1.1. Background

As an emerging middle-income country, Indonesia's challenge is to improve its competitiveness. Policies must be oriented towards unlocking the potential of quality development. One approach is to increase the role of research in policy making and policy implementation. Research is seen as a strategic effort to influence and produce better policies. The term 'evidence-based policy' stems from the idea that research (from which evidence is produced) is the basis of a good policy.

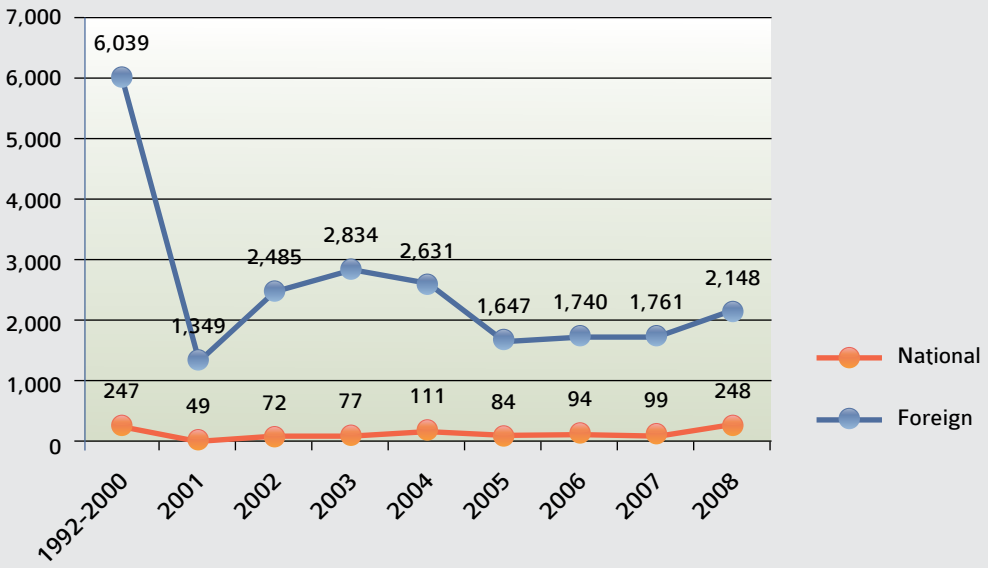
The challenge of building research capacity to support policy making and implementation is not unique to Indonesia. One of the strategies to answer this challenge is to improve research quality in Indonesian universities. However, despite efforts to advance, drive and facilitate research activities, research performance in Indonesia remains below average. Research 'performance' is generally measured by the number

Chart 1: Research Comparison by Country (Percent)



Source: SSCI Database, 1956 to 2011.

Chart 2: Total Registered Patents in Indonesia



Source: Patent Directorate, General Directorate of Intellectual Property Rights of the Ministry of Justice and Human Rights, 2010.

of papers published in international journals and patents. According to SCImago Journal and Country Rank, Indonesia produced 9,194 papers in the period 1996–2008, below Bangladesh, Lithuania and Nigeria, and lagging far behind other Southeast Asian countries such as Thailand, Malaysia and Singapore (see Chart 1). The Social Sciences Citation Index (SSCI) shows that Indonesia only accounts for 12 per cent of the total research papers submitted to peer-reviewed international journals, or half of the total journals from Thailand and Malaysia (Suryadarma, et al. 2011).

A study conducted by Brodjonegero and Greene (2012) found that the number of patents registered by Indonesian researchers to the United States Patent and Trademark Office (USPTO) in 2008 was below Singapore, Malaysia, Thailand and the Philippines. Meanwhile, in Indonesia, the number of foreign patents registered between 1992 and 2008 was greater than the number of local patents. These findings reflect the poor quality of research and human resources in Indonesia. There has not been a significant change in the number of patents issued in Indonesia in comparison to peer countries in the region.

The Knowledge Sector Initiative (KSI) is a joint initiative between the Governments of Indonesia and Australia aimed at enhancing the quality of public policy in Indonesia through the use of research, analysis and data. KSI is organising and implementing a program to build the capacity of research institutions, systems and regulations that support evidence-based policies, the development of effective models to conduct and use research to inform policy, and to work with various organisations in the knowledge sector to expand access to research findings for policy makers – including the Government, community organisations and the media.

The program's expected long-term outcome is to identify and mitigate systemic barriers that have hindered the effectiveness of the knowledge sector. This is to be achieved by encouraging investigations and discussion on the main barriers and supporting efforts to remove them. These efforts are in line with KSI's goal to create an enabling environment.

1.2. Research problem

The research problem is formulated in the following question: What are the barriers to research and publication performance in Indonesian universities, especially in Atma Jaya Catholic University of Indonesia (Unika Atma Jaya) as a private university (PTS)?

1.3 Objective

The objectives of this research are to:

1. Diagnose barriers to research in Indonesia and highlight the short-term efforts of universities to remove these barriers, particularly in Unika Atma Jaya as a PTS.
2. Study the root cause of barriers from conceptual and philosophical points of view.
3. Propose strategies to advocate and disseminate evidence to improve policies.
4. Propose interventions to change how government policies are informed and to change policy making in Unika Atma Jaya.

2 Conceptual Framework, Basic Assumption and Research Questions

2.1. Conceptual framework

From the initial discussion, eight issues are selected as the focus areas of this research:

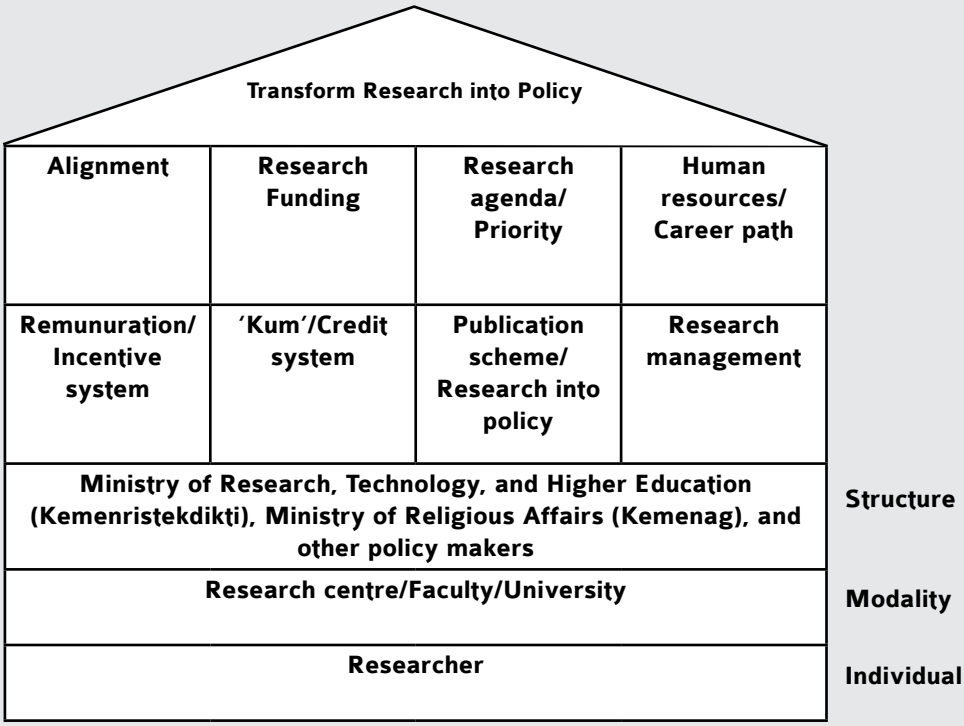
a. Relevancy
b. Research funding
c. Research agenda/priority
d. Human resources in research and research 'careers'
e. Remuneration and incentive systems for researchers
f. Credit system
g. Publication and policy research schemes
h. Research management.

Each issue will be individually explored using three standpoints: i) structure/system (e.g. state/government policy, research and funding structure, support for research development), ii) modality (e.g. university rules and policies, facilities, research management, research area facilitation, etc.), and iii) individual aspects (e.g. performance of ongoing research, qualifications, capacity, network, etc.) (Nugroho, et al. 2016).

KSI will explore the barriers and causes at institutional level, including research centres, faculties and higher institutions (Ministry of Research, Technology and Higher Education – '*Kemenristekdikti*' or 'Dikti for short – and other relevant institutions) when it comes to transforming research into policy.

The framework above is illustrated in the following conceptual framework diagram.

Chart 3: Research Model



2.2. Basic assumption

Research in universities in general is of lower priority than other aspects of the Tri Dharma, namely education/teaching and community service. As a private university that does not receive government subsidy, Unika Atma Jaya prioritises teaching, as tuition fees are its main financial source to support the institution's operational activities.

2.3. Research questions

1. What is the quality of research performance in Unika Atma Jaya and use of evidence from research? If performance is subpar especially in terms of quantity and use of research, what are the causes? What are the factors that inhibit research performance in the university?
2. What factors can improve research performance in the university?
3. What best practices can be emulated to address research barriers?
4. What expectations and opportunities do universities and researchers have to improve research performance in Indonesia?

3 Methodology

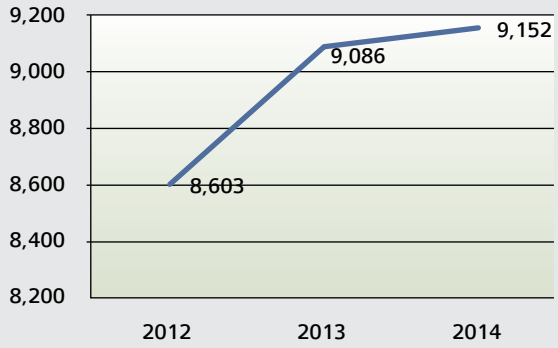
3.1 Research context

The setting of this research is the Catholic university Unika Atma Jaya, a private university in Indonesia and the only Catholic university in Jakarta. It was the first in the world to be established by a non-Catholic congregation. Unika Atma Jaya was established on 1 June 1960 with the goal to contribute to the young country of Indonesia that at the time had recently acquired its independence. It also aimed to provide education to students of Catholic faith and the public at large. This historical context shapes the university's distinct characteristics. As a Catholic university, Unika Atma Jaya is inseparable from Catholic attributes and features, and these are reflected in, among others, objects around the campuses, Catholic rituals and traditions, its membership of the Catholic university association (APTIK), and its participation in various networks with other Catholic institutions and churches. However, as a tertiary education institution, Unika Atma Jaya consistently strives to contextualise its identity, making its presence relevant to Indonesia by demonstrating that it stands with diversity when it comes to delivering education.

Formally, and based on its organisational structure, Unika Atma Jaya is under Yayasan Atma Jaya. Unika Atma Jaya has two campuses, Pluit Campus where the Faculty of Medicine is located near the teaching hospital RS Atma Jaya, and Semanggi Campus where the other faculties are located. Currently, the university manages seven faculties, 25 programs (17 undergraduate and eight postgraduate programs) and six research centres.

Unika Atma Jaya has around 9,000 students (see Charts 4 and 5), and this number has been steadily increasing in the past three years. By faculty, the Faculty of Economics (FE) has the largest number of students and accounts for 30 per cent of the total students. The upward trend in student numbers can be seen across all faculties, with the exception of

Chart 4: Unika Atma Jaya Total Students 2012-2014



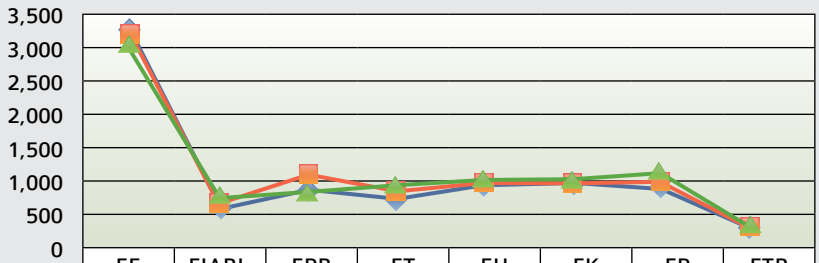
the Faculty of Medicine (FK) in 2013, and the FE and Education and Culture (FPB) in 2014.

Charts 6, 7 and 8 show the total number of teaching staff (lecturers) and their educational background. Their number increased in the period 2012–2014, although not significantly. Data shows that the increase in lecturer numbers by faculty is around one to three new lecturers per year. FK is an exception, with seven new lecturers joining the faculty in 2014. Interestingly, even though FE maintains the highest number of students, it is FK that has the largest teaching staff. This relates to the characteristics of the teaching process of the medical profession. By educational background, the majority of lecturers hold a master's degree (S2), and the number of lecturers with doctorate degree (S3) is increasing.

Research activities in Unika Atma Jaya are done by the research and community service institution, Lembaga Penlitian dan Pengabdian kepada Masyarakat (LPPM). LPPM is led by a Chairperson whose position is equivalent to a dean. During research activities, the LPPM Chairperson coordinates with faculty deans, as most research projects are done by researchers who are also lecturers in faculties. In addition to lecturers, Unika Atma Jaya also engages other researchers–although their numbers are limited to projects and they are assigned to specific research centres.

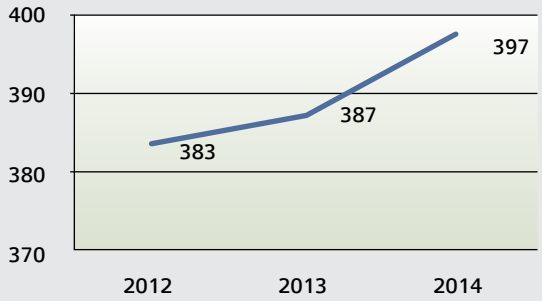
Research in Unika Atma Jaya was initially a separate activity from faculties that are teaching-oriented. A research centre, Pusat Penelitian Atma Jaya or PPA (later changed its name to Atma Jaya Research Institute/LPA), used to independently manage research

Chart 5: Students by Faculty 2012-2014



	FE	FIABI-KOM	FPB	FT	FH	FK	FP	FTB
2012	3,300	576	873	741	922	991	895	305
2013	3,198	684	1,105	846	980	971	988	314
2014	3,075	771	866	938	1,031	1,017	1,126	328

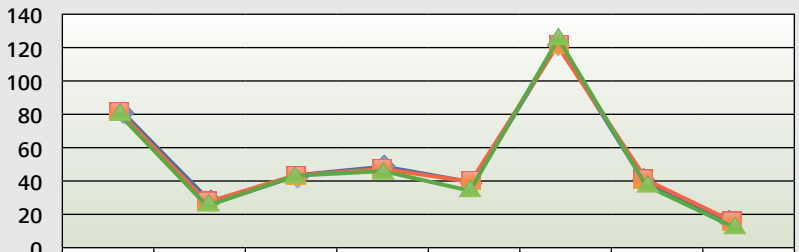
Chart 6: Unika Atma Jaya Permanent Lecturers 2012-2014



projects in the university. During this period, research was mostly externally funded and carried out by full-time researchers. A change occurred in the 1980s where research and teaching were integrated as part of the Tri Dharma, the triple roles of universities. The changes that followed were momentous. First, research was incorporated into the responsibilities of faculty lecturers, and formalised in the workload system of lecturers. Second, the status of full-time researchers in LPA was converted to lecturers under faculties, making them part of a faculty's teaching staff. PPA also changed into the Centre for Community Development Studies, Pusat Kajian Pembangunan Masyarakat (PKPM). Research and community service management at university level was then tasked to the Atma Jaya Research Institution (LPA) and Community Service Institution (LPM), in compliance with the Government's regulations at the time. Currently, Unika Atma Jaya does not have full-time researchers based on projects. This critical integration will be one of the main topics of discussion in the Findings chapter.

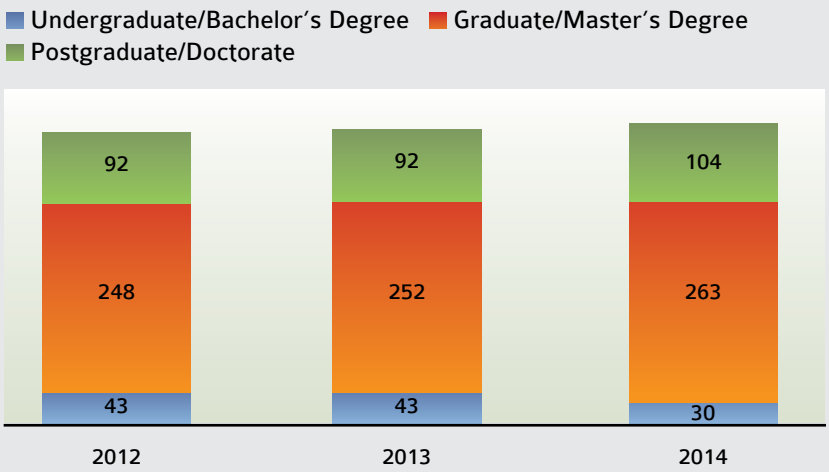
By funding, research in Unika Atma Jaya can be categorised into two groups. First, internally funded research, typically undertaken by lecturers of the same faculty, or joint research between lecturers from different faculties. Second, externally funded research, where research funds could be obtained from, for example, Kemenristekdikti (grants) or sponsors. Sponsored research (research with funding other than grants) is generally undertaken by research centres with minimum involvement from faculties. Researchers may

Chart 7: Permanent Lecturers per Faculty 2012-2014



	FE	FIABI-KOM	FPB	FT	FH	FK	FP	FTB
2012	73	25	40	45	37	110	39	14
2013	75	26	40	45	37	110	39	15
2014	77	28	42	44	36	117	38	15

Chart 8: Lecturers by Education Background 2012-2014



be sourced from among lecturers or contract researchers.

Unika Atma Jaya has defined a strategic direction for research based on the University Statute, and translated into an annual university research agenda. However, there have been challenges to implementing the agenda due to its lack of dissemination and explanation.

The university upholds the Tri Dharma through its three pillars: education/teaching, research and community service. However, Unika Atma Jaya's core focus remains on education/teaching instead of research as it depends on tuition fees for income. Nevertheless, the university continues its endeavour to strengthen the research pillar in line with the Government's direction that underlines the importance of research in universities.

There are at least three institutional instruments that place research as part of a lecturer's responsibility:

1. Minister of Education Regulation Number 47 of 2009 on Lecturer Certification. The regulation requires lecturers to prepare a Lecturer's Workload (BKD) report every semester.

   For a lecturer who does not hold a structural position, research is mandatory and must be reported. Unika Atma Jaya encourages its lecturers to meet this requirement and to have it reflected in their BKD reports.
2. Unika Atma Jaya's regulation on BKD of 1999 stipulated that the workload of a non-structural lecturer consisted of 12 credits (SKS) – teaching (9 SKS) and research and community service (3 SKS). The workload was adjusted gradually for teachers with structural positions. Despite being stipulated formally in a regulation, research had not been mandatory. The regulation was therefore revised in 2014, with the key change stipulating research as mandatory for non-structural lecturers. Lecturers who do not fulfil their research/publication requirement every semester consequently fail to meet their minimum obligation and will not be eligible to receive pay for any additional load – even when their teaching credit has met and exceeded the minimum requirement. For lecturers with structural positions, research is not mandatory. A structural lecturer that reports additional teaching credits will receive his or her pay accordingly even without carrying out research.
3. The university's quality policy, formulated in annual quality targets, has incorporated research and publication targets since

2013. Quality targets are translated to faculty level. Targets are quantitative and have yet to consider the quality of research/ publication.

3.2. Research design

This research uses a case study (multiple, embedded case study) design. Unika Atma Jaya is one of the universities studied in this research alongside three other partner universities: Universitas Gadjah Mada, Universitas Indonesia, and Universitas Islam Negeri Syarif Hidayatullah Jakarta.

3.3. Analysis unit

The analysis unit of this research is the university and includes the following:

1. University policy makers, i.e. the management of Yayasan Atma Jaya and university leadership.
2. Seven faculties, 17 undergraduate programs and eight postgraduate programs: Faculty of Economics and Business (FEB), Faculty of Medicine (FK), Faculty of Engineering (FT), Faculty of Education and Language (FPB), Faculty of Law (FH), Faculty of Psychology (FP), and Faculty of Biotechnology (FTB).

Research and community service centre, LPPM Unika Atma Jaya and its five centres: HIV-AIDS Studies (PPH), Community Research (PKPM), Language and Culture (PKBB), Ethics Research (PPE) and Health Research (Puslitkes).

3.4. Informants and research sample

Based on the analysis unit the participants of this study were:

1. The Chair and core management of the Atma Jaya Foundation.
   Rector and Deputy Rector I for Academics. A change in leadership of Unika Atma Jaya occurred during the study. The respondents interviewed in this report were the prior and new Rector and Deputy Rector I.
2. Deans, research and community service coordinators in faculties, and head of research centres.
3. Lecturers and researchers.
4. Staff of research centres.

The sample population of this study is all lecturers targeted in the data collection. A quantitative sampling technique was not applied. Qualitative sampling using maximum variation was used to treat the lecturers and researchers group of respondents, i.e. by considering their length of tenure (seniority) and research activity.

3.5. Data collection

The data for this study were collected using mixed-method. Data collection was conducted from 16 September 2015 to 22 October 2015. The following methods were used:

1. Secondary document review on research profile of private universities and research policies.
2. Focus group discussion (FGD) with lecturers-researchers.
3. In-depth interviews with relevant research units/organisations in research centres, faculties and the university.
4. Questionnaire distribution to gain profile information at group level.

The data represents a total of 169 participants. They consist of foundation and university leadership (N=6), faculty leadership (N=3), faculty research coordinators (N=8), head of research centres (N=5), lecturers (N=13), non-lecturer researchers (N=4), administration staff (N=6) and 124 lecturers who responded to the questionnaires.

3.6. Data analysis

Data were analysed using a pattern matching method. The collected information was used to confirm or reject a proposition. In addition, the information was used to elaborate the eight issues identified as barriers/causes

of research and research use performance. Cross-study analysis will be applied to compare findings between different case studies.

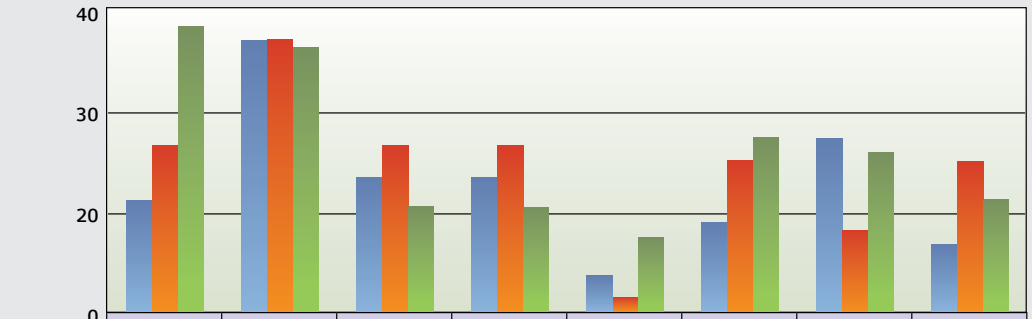
3.7. Research ethics

Prior to data gathering, the outline and objective of the research had been communicated to university and faculty leadership as well as individuals targeted as participants. The researchers explained the process and asked for consent from the respondents concerning the FGD and interview procedures, data confidentiality and data recording. A consent form was attached to every questionnaire and signed by the respondent. Questionnaire respondents could choose to provide or not provide a response. Data confidentiality was assured and questionnaire respondents were informed that their response would not affect or link in any way to their performance evaluation.

4 Findings

4.1 Research performance

Chart 9: Number of Research Activities in Unika Atma Jaya 2012-2014 by Faculty



	FE	FIABIKOM	FPB	FT	FH	FK	FP	FTB
2012	15	36	18	18	5	12	23	9
2013	22	36	22	22	2	20	11	20
2014	38	35	14	14	10	23	21	15

4.1.1 Unika Atma Jaya research performance

Chart 9, above, shows that the number of research studies in different faculties in Unika Atma Jaya fluctuated in the 2012–2014 period. The number increased in FE and FK during those three years, but fluctuated across all the other faculties, while the Business Administration and Communications Science Faculty (FIABIKOM) demonstrated relatively constant performance.

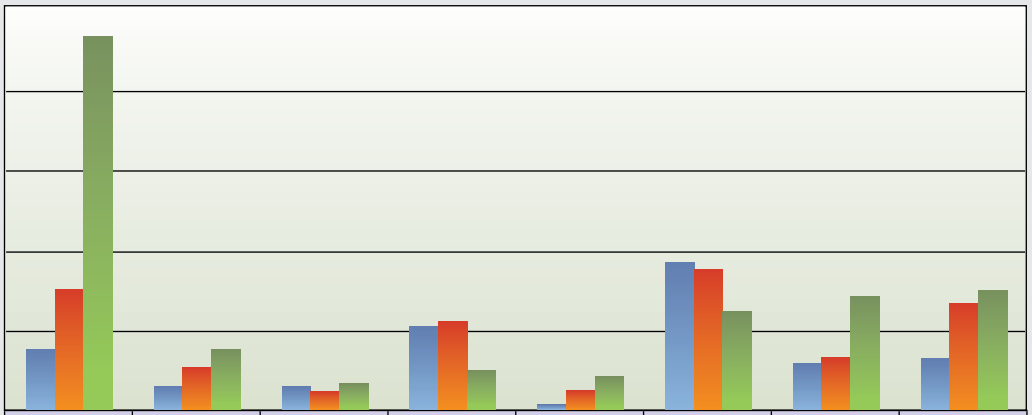
The fluctuation in terms of the number of published papers of Unika Atma Jaya in 2012–2014 was consistent with the total research budget of the same period. Charts 10 and Chart 11 show that research funding came from a variety of sources, including university/foundations Kemenristekdikti grants, local and international partners, and projects from research centres. The charts also

Chart 10: Total Research Budget in Unika Atma Jaya

show that funding dropped in 2013 but drastically increased in 2014. This was due to a jump in the FE research budget in 2014 (in addition to budget increases in FIABIKOM, FH, FP and FTB). The charts show that the budget utilisation in the Faculty of Economics and Business, FIABIKOM, FH, FP and FTB rose during the 2012–2014 period. During the same period, research budget use in FPB and FT fluctuated, and decreased in FK.

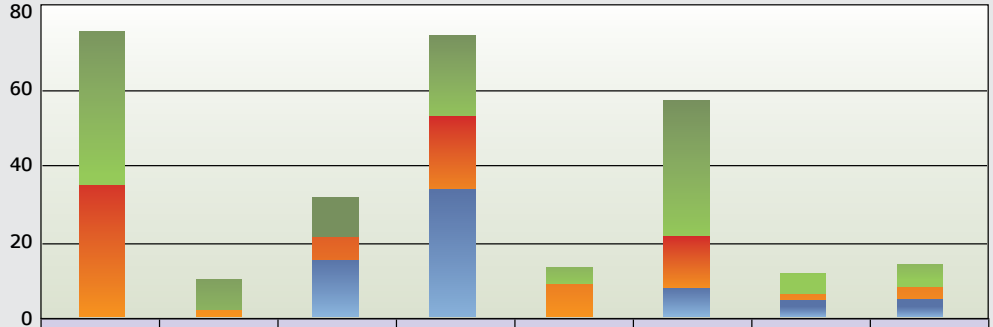
Despite fluctuations in research in 2012–2014, the commitment of foundation and university leadership to research to support lecturers in undertaking research remained high, as stated by the head and secretary of Yayasan Atma Jaya in their interviews.

Chart 11: Total Research Budget Unika Atma Jaya 2012-2014 by Faculty



	FE	FIABIKOM	FPB	FT	FH	FK	FP	FTB
2012	Rp 150,000,000	Rp 60,000,000	Rp 60,000,000	Rp 213,000,000	Rp 20,000,000	Rp 371,500,000	Rp 120,000,000	Rp 133,000,000
2013	Rp 302,000,000	Rp 110,000,000	Rp 50,000,000	Rp 221,000,000	Rp 55,000,000	Rp 358,000,000	Rp 135,000,000	Rp 270,000,000
2014	Rp 942,000,000	Rp 150,000,000	Rp 68,000,000	Rp 102,000,000	Rp 89,000,000	Rp 250,000,000	Rp 284,000,000	Rp 300,000,000

Chart 12: Number of Articles in National Journals by Faculty



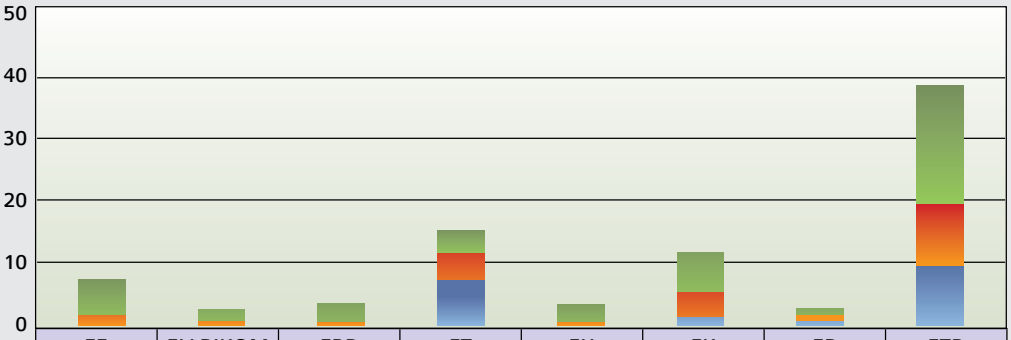
	FE	FIABIKOM	FPB	FT	FH	FK	FP	FTB
2012	0	0	15	33	0	8	5	5
2013	34	2	6	19	9	13	1	3
2014	39	8	10	20	4	34	5	6

The data on research and budget utilisation reveal that fluctuation generally occurred in nearly all faculties. Data suggested that budget use was significant at first glance, but further investigation–by comparing the number of permanent lecturers per faculty with research projects–revealed a wide range of ratio, from one research study per 10 lecturers (FK in 2012) to almost one research study per lecturer (FIABIKOM and FTB in 2012–2014). This finding suggests that the interest of lecturers in research also varied, with FIABIKOM and FTB as the most productive faculties in research.

Discussing the wide gap between the number of lecturers and research and published papers, the Unika Atma Jaya Rector 2015–2019, Dr. A Prasetyantoko, said that the university had been focusing on increasing the number of research projects and papers. According to Dr. Prasetyantoko, who had served as head of LPPM, disparity between lecturers' skills in writing and conducting research was one of the barriers to optimum performance. The quality of research output and capacity building of lecturers were not the key focus in the past.

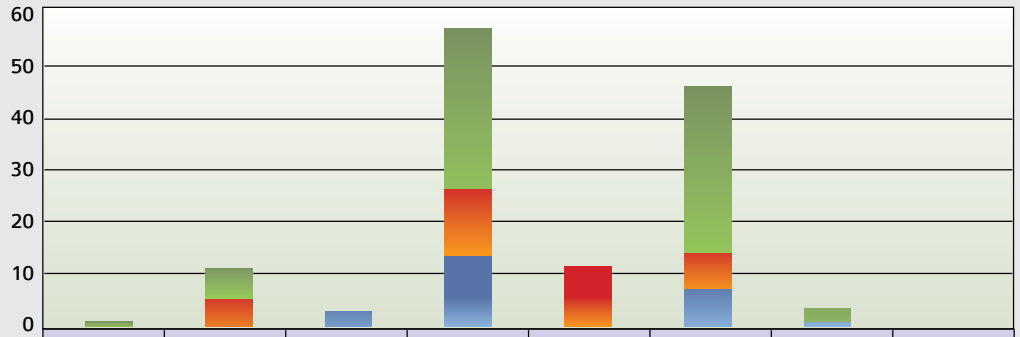
Research output data can be seen in Chart

Chart 13: Number of Articles in International Journals by Faculty



	FE	FIABIKOM	FPB	FT	FH	FK	FP	FTB
2012	0	0	0	8	0	2	1	10
2013	2	1	1	4	1	4	1	10
2014	6	2	3	4	3	6	1	19

Chart 14: Number of Proceedings in National Seminars

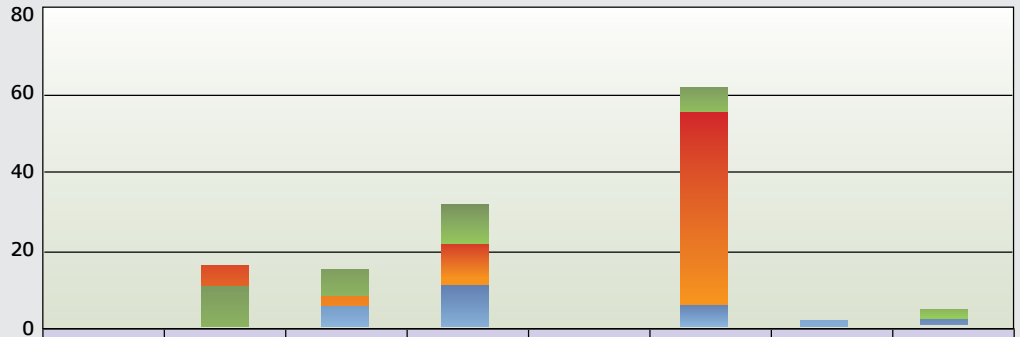


	FE	FIABIKOM	FPB	FT	FH	FK	FP	FTB
2012	0	0	3	13	0	7	1	0
2013	0	6	0	14	11	7	0	0
2014	1	5	0	29	0	32	2	0

12 and Chart 13. In general, increases can be seen in almost all faculties, even though publication of research fluctuated. Although the increase was a welcome development, publication-to-lecturer ratio was still low (ranging from zero articles published in a journal in several faculties in 2012 to one lecturer from FTB publishing more than one journal article in 2014).

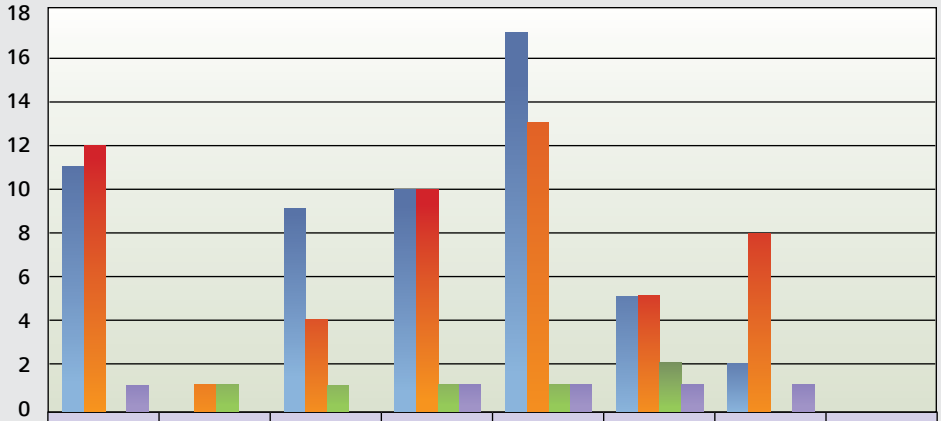
The university data above was in line with the data gathered from the survey on publication and research productivity provided by lecturers in this research (Chart 16). The survey on lecturers found that most lecturers produced four to six publications, and one to three in the last three years (journal and proceedings). On average, this means that there were only approximately one to two published articles in one year. There were very few lecturers who produced more than two published articles in one year. Based on the data (from the LPPM database and survey results), it is clear that not all research projects undertaken by lecturers were published in scientific journals or seminar/conference proceedings. In other words, not all outputs of research projects were a valuable contribution to the publication performance of Unika Atma Jaya. This could be partly attributed to the university's policy that puts greater emphasis on final reporting and that getting published, whether in a journal or a scientific conference,

Chart 15: Number of Proceedings in International Seminars



	FE	FIABIKOM	FPB	FT	FH	FK	FP	FTB
2012	0	0	5	11	0	5	1	1
2013	0	11	3	13	0	60	0	0
2014	0	6	6	12	0	7	0	2

Chart 16: Number of Published Papers by Unika Atma Jaya Lecturers in the Past Three Years



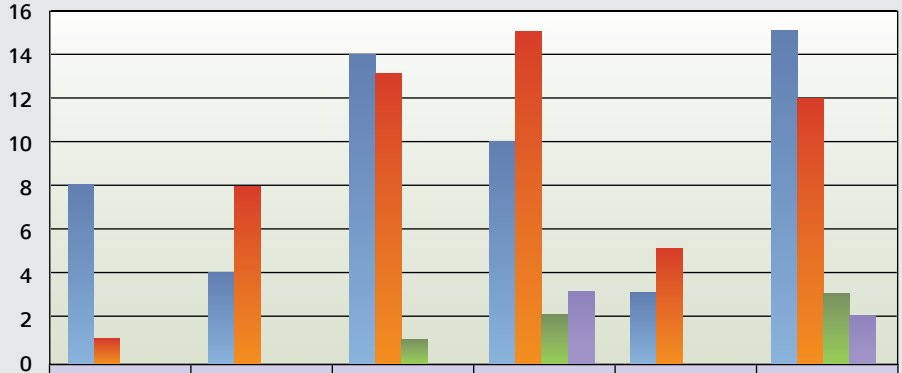
	FEB	FEB (FIABIKOM)	FPB	FT	FK	FP	FTB	Missing
3 or less	11	0	9	10	17	5	2	0
4 to 6	12	1	4	10	13	5	8	2
7 to 10	0	1	1	1	1	2	0	0
more than 10	1	0	0	1	1	1	1	0

was not required.

Data also suggest that the level of productivity and the length of tenure of a lecturer were exclusive to each other (Chart 17). The data points out that the majority of lecturers with three or fewer published papers had been teaching for 20 years, followed by six to 10 years of tenure, which shows that both senior and junior lecturers were equally inactive.

There were relatively fewer lecturers with a high level of productivity in the past three years (published seven or more times) compared to those who were published four to six times or less than three times in the past three years. Meanwhile, the productive

Chart 17: Number of Publications Published in the Past Three Years Compared to the Length of Tenure



	Kurang dari 2 tahun	2-5 tahun	6-10 tahun	11-15 tahun	16-20 tahun	lebih dari 20 tahun
3 or less	8	4	14	10	3	15
4 to 6	1	8	13	15	5	12
7 to 10	0	0	1	2	0	3
more than 10	0	0	0	3	0	2

lecturers were sufficiently experienced (at least 11 years) and only one person was in the bracket of six to 10 years.

4.1.2. Research centre performance (PPH Atma Jaya)

There are four research centres in Unika Atma Jaya and all four are under the coordination of LPPM: Centre for Community Development Studies (PKPM), Centre for Ethics Development (PPE), Centre for Language and Cultural Studies (PKBB) and Centre for HIV/AIDS Research (PPH). Additionally, the Centre for Health Research (Puslitkes) is under the Faculty of Medicine. The centres play a significant role and are important to the research performance of the university. Their reputation and networks have enabled them to build partnerships with donor organisations and promote Unika Atma Jaya to society.

The centres have a unique history of establishment that could not be removed from the context of the past. PPE was established to deliver teaching activities, maintaining the identity of Unika Atma Jaya in philosophy and ethics, and contributing to advancing the discourse of ethics in public. PKBB was established to pursue its main concerns on disseminating evidence and public discourse in language and culture, while PKPM, PPH and Puslitkes were founded to be the leading research centres in their distinct fields of education, health and economic welfare of marginalised urban communities. They were also established to meet the research needs of the Indonesian Catholic Church (PKPM), the HIV/AIDS issue (PPH) and public health issues (Puslitkes).

Not all of the centres began as research-oriented organisations. As they developed, they moved towards research and transformed into true research centres. This new direction has posed a significant challenge. The history of the centres' establishment was not well documented and was only captured in FGDs and interviews with the heads of the various centres. Consequently, the university, LPPM, and the centres have different ideas on which course to take and the future development of the centres. This particular issue will be explored in the next chapter which discusses research barriers.

In line with the scope of this research, we will highlight and elaborate the performance of PPH Unika Atma Jaya. The head of this research centre is a permanent lecturer, the only researcher that holds a permanent teaching position. The head oversees three staff members (who are also permanent employees of Unika Atma Jaya) who manage the administration in PPH. PPH research staff are mainly non-lecturer researchers. It has traditionally been dominated by part-time staff

Chart 18: Number of Full- and Part-Time Researchers in PPH 2012-2014

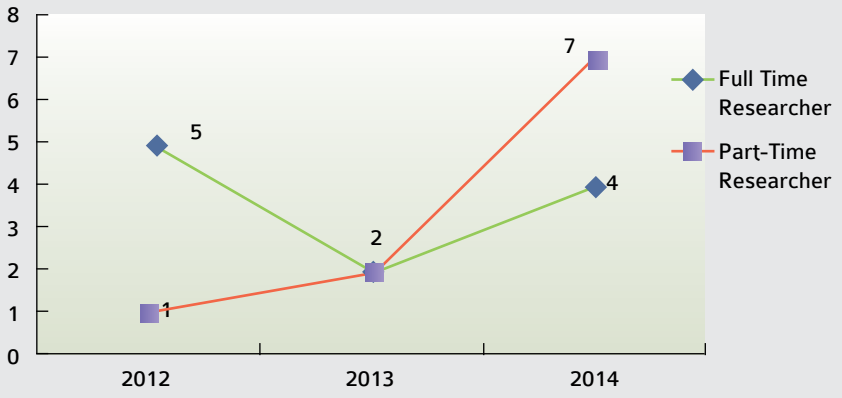
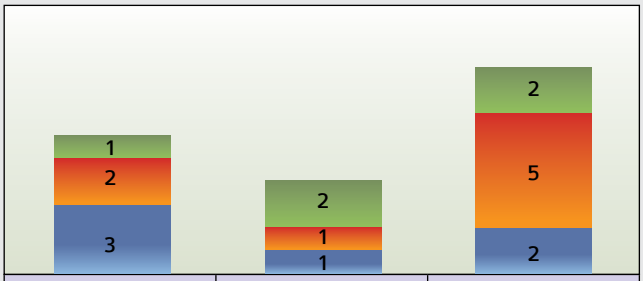


Chart 19: PPH Full- and Part-Time Researchers' Education Background 2012-2014



	2012	2013	2014
Bachelor's Degree	3	1	2
Master's Degree	2	1	5
Doctorate Degree	1	2	2

members. PPH researchers in general have sound educational background, with the majority holding graduate and postgraduate degrees (Chart 18 and Chart 19). The number of full- and part-time researchers varies from time to time, as the need for staff would depend on the scale and number of ongoing research projects.

As a research centre, PPH conducts two main types of activities: sponsored research and non-research projects, or consultancies according to the field of expertise. Chart 20 and 21 show the number of research and non-research projects in PPH. In the period 2012–2014, these activities showed opposite trends. While research projects increased, consultancy projects decreased. In terms of income trends, income significantly declined in 2013 and increased in 2014 (Chart 21). The decrease in 2013 was consistent with PPH having fewer researchers during the same year.

By comparing the total research budget from the university with PPH's budget 2012–2014, it is clear that PPH research projects generated notably higher research funds than the budget allocated by the university (Chart 22). This suggests that a research centre has significant potential to generate its own income from research and could even exceed the amount of research funding from the university.

The development of networks and partnerships in PPH is shown in Chart 23.

Chart 20: Number of Research and Consulting Projects in PPH 2012-2014

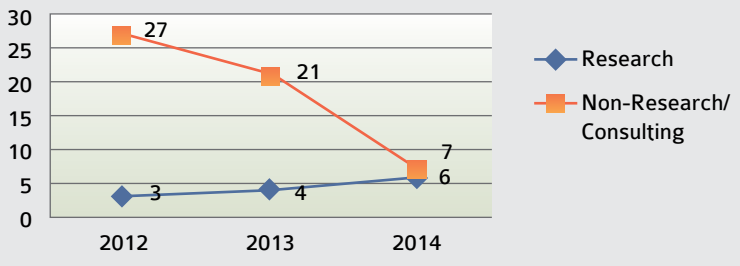


Chart 21: PPH Income Trend

Chart 22: Comparison of Total Research Budget 2012-2014

Partnerships with international institutions were prominent although the number of partnerships with both national and international organisations also increased.

PPH research and consulting outputs have been published in national and international journals as well as national books, as shown in Chart 24.

Chart 23: Number of PPH Partnerships in the Past Three Years

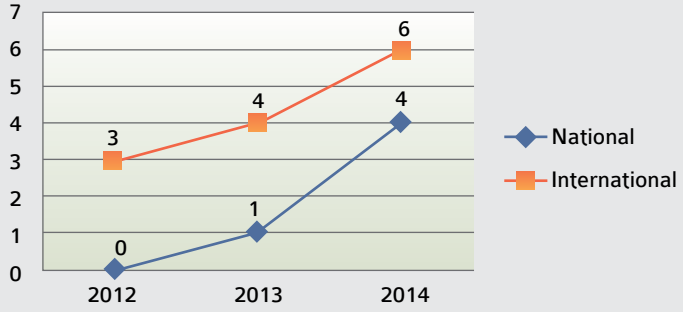
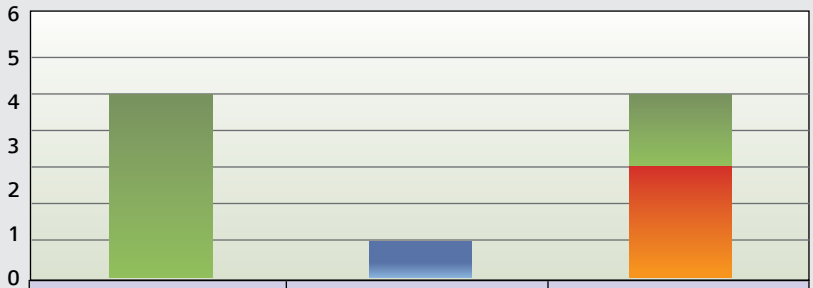


Chart 24. PPH Publication in the Past Three Years



	2012	2013	2014
National Journals	0	1	0
International Journals	0	0	3
National Books	4	0	2

4.2 Research barriers in Unika Atma Jaya

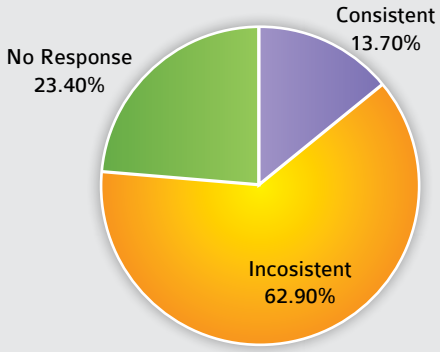
4.2.1. Government regulations and university policy alignment

4.2.1.1 Perception towards government policy

Interviews and FGDs held in Unika Atma Jaya revealed inconsistency in terms of the interpretation of the triple roles of a university, which are the cornerstone of the roles and duties of any Indonesian university. A critical question was asked during the discussion with heads of centres: What is the scope of Tri Dharma implementation–is it an institutional or individual responsibility? The Higher Education Act No. 12 stipulates that Tri Dharma is an institutional mandate. Therefore, there appears to be a 'distribution of tasks' in a university, although the boundaries are not rigid. For example, a faculty may focus more on teaching, while research and community service are the focus of centres of studies/ community service. Provided that this is the case, lecturers should be allowed to choose their focus–research and publication or teaching. Research centres–managing two of the three roles–would have greater scope of activity.

Nevertheless, the Teachers and Lecturers Act No. 14 of 2005 and Government Regulation Number 37 on Lecturers stipulate explicitly that the implementation of Tri Dharma is an individual responsibility, that is, the lecturers are responsible. This point was later reinforced in the Lecturers Workload Guidelines and Tri Dharma University implementation Evaluation in 2010. The certification policy of lecturers is in line with the spirit of Tri Dharma as an individual task. This shows that lecturers are not just teachers. They must also conduct research, publish and perform community service. In recent years, the score weight for research and publication has increased, as reflected in the accreditation and functional position level policy (see Part 6, Credit System). The most discernible impact of this policy is that lecturers must manage their schedule in such a way to ensure that the triple roles can be exercised at any time. Second, lecturers will have no time to produce quality research–that could be time consuming and lengthy, considering that 75 percent of their time is spent teaching in classrooms. This policy has cost the lecturers the time and energy it would take to conduct sound research and to publish the findings in reputable scientific journals. The significant teaching burden is one of the main barriers expressed by participants in this research. In a discussion with a group of lecturers with low research

Chart 25: Perception of Unika Atma Jaya Lecturers on the Consistency of the Rules on Functional and University's Efforts to Invigorate Research/Publication



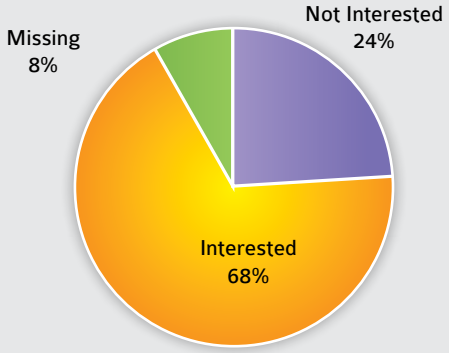
productivity, it was said that they found the amount of research funding (e.g. grants from the ministry) was an attractive incentive. However, the teaching burden and administrative activities were constant deterrents to starting research or writing an article. Lecturers often find it difficult to make the time to collect data, which may require them to be in the field and away from the classroom for a significant period of an active academic year. One respondent in a FGD conveyed that between teaching and coordinating parallel classes, which already took a substantial amount of time, the respondent had become disinclined to carry out research.

A number of rules concerning BKD computation are deemed counterproductive to the mission of driving and invigorating research and scientific publication. One example is the rule that exempts a lecturer from the obligation of conducting research or submitting papers for scientific publication provided that the lecturer is a holder of a structural position or is a BKD assessor. In the lecturer group of respondents, this exemption is perceived as a weakness of leadership and a lack of leadership spirit. A discussion participant expressed that a lecturer's main responsibility is the Tri Dharma and irrespective of the structural position, a lecturer should not relieve himself or herself from it.

The principle of adequacy applied on research and scientific publication activities was also a notable point of discussion in the lecturer group. This principle limits the maximum number and type of publications that can be recognised in a certain period, especially relating to converting the publication into credits required for a lecturer's promotion. The respondents perceived this rule as a hindrance, especially for productive lecturers. All respondents agreed that the rule should set minimum requirements instead of applying a cap, which the respondents view as counterproductive to increasing research activities and scientific publication.

Substantial input was also gained from participants on the grant scheme from Dikti. The grant program aims to improve research

Chart 26. Unika Atma Jaya Lecturers' Interest in Taking Dikti's Grant



performance among lecturers through funding. Some 68 percent of respondents expressed interest in conducting research using the grant. However, a number of issues arose (see Chart 26). According to a lecturer who was also an active researcher there is an inconsistency in the grant requirements. On the one hand, the program states that a researcher must hold a certain functional position to be eligible to submit a research proposal to the grant program. This would also support research publication. On the other hand, in order to attain a functional position, a lecturer must be able to demonstrate past research activities, including a research grant from Dikti. The contradictory requirements create significant barriers for researchers, particularly junior lecturers who are seeking to build a track record.

Concerning the rule that facilitates research funding (grant), the Deputy Rector I Unika Atma Jaya 2011–2015 conveyed in his interview that Unika Atma Jaya as a private university also experienced a number of hindrances in accessing grant funding. For example, the Dikti grant scheme distinguishes between PTS and PTN lecturers. According to an official in Dikti, PTN has greater access to grants, which would enable a research project to obtain significant funding. The distinction is in fact caused by a technical issue in that PTN's budgeting system is more in sync with Kemenristekdikti as they are both government institutions. This situation similarly occurs in research projects funded by provincial and district/city governments.

Another barrier or element that causes a difference between lecturers according to Unika Atma Jaya respondents is the recognition of research or scientific publication of certain disciplines, such as law and philosophy. It is not mandatory for lecturers in these branches to obtain primary data. Their research can be conducted by using case studies or analysis of phenomena. However, the scientific interpretation and assessment criteria of research or publications are difficult for lecturers from these branches to meet, as the criteria are heavily oriented towards formal and natural sciences: primary/empirical data, objectivism and positivism. The criteria suggest that disciplines outside the formal branch are 'second class' and are less scientific. As a consequence, it is difficult for lecturers from certain disciplines to satisfy the demands that are contrary to their fields of expertise.

4.2.1.2 Perception towards institutional policy

Unika Atma Jaya adheres strictly to the Government's triple-role regulation, as is evident from the university's policies that support it, including the Academic Load Exceedance (KBA). While theoretically KBA aligns with BKD and lecturer certification policies, there are no verification and control mechanisms in its implementation. Applying a self-assessment model, the research/publication performance may not be accurately reflected in KBA.

In terms of creating robust academic culture (colloquium), whether within the same field or interdisciplinary, quality programs are in place. The university organises the Atma Jaya Award as a platform for lecturers from various disciplines to present their research findings, as well as cross-science discussion forums, seminars and international conferences. However, teaching obligations and workloads make it difficult for lecturers to attend scientific forums without rearranging their teaching schedules. The university made a quality assurance commitment through the ISO 9001 certification, which requires lecturers to teach in a classroom 14 times for each subject. Where lecturers are unable to attend, a substitute class must be organised. This discourages lecturers from attending scientific forums, as scheduling for a make-up class and navigating between the lecturer's and students' activities can be challenging.

Another cause identified as hindering the

growth of quality research and publication is lecturers' performance evaluation. This has not incorporated assessment on scientific productivity. Evaluation is conducted twice per year in Unika Atma Jaya and the assessment provides quantitative weight to objectively measurable aspects of performance (including the number of scientific publications and involvement in grant programs). According to the respondents, it is vital to improve the university's performance evaluation based on the Tri Dharma.

The data collected from respondent groups (heads of centres, past and current university leaders and researchers) highlight a number of issues that are unique to the centres. A fundamental issue is the history of establishment of the centres as elaborated earlier. While the centres carry their own history that influences their activities and developments, it is not well documented. As a result, university leaders often fail to grasp the reasons and direction of establishment, as well as the initial roles of the centres. This issue is reflected from the ambiguous vision and role of the centres to the development of university research performance.

From the interview with the Deputy Rector I 2011–2015, the university's research agenda is cascaded to faculty level, and from the faculty level to lecturers. The research agenda in study centres is deemed unclear in terms of direction and development. However, by placing research centres under LPPM, research output is now demanded. Understandably, a shift from an emphasis on teaching and dissemination towards active research requires a change in the vision of the centres.

At the level of the research centres, central and essential issues arise from the integration of lecturers to faculties, a practice that has continued in the last three decades. On the one hand, as a result of this integration, Unika Atma Jaya no longer recognises the position of non-lecturer researcher. Unika Atma Jaya therefore refers solely to the regulation in Dikti that recognises only three groups of staff in universities: educators (lecturers), educational staff (administration staff) and academic support staff (IT, lab and library staff).

On the other hand, the integration means research centres are losing their full-time researchers. Lecturers, with their high teaching load, cannot be relied on to perform research. Negotiation with faculty leaders is not the simple answer, as it is in the interests of the faculties to ensure that teaching experiences as little interference as possible. For this reason, PKPM and the HIV/AIDS centre (PPH) recruit contract researchers who can be engaged on a project basis. However, this also has its challenges. The Government assigns employed lecturers a National Lecturer Identity Number (NIDN). This is an official identity number that allows lecturers' performance to be recognised. Hired researchers do not have lecturer status and are not assigned an NIDN, which results in their performance not being recognised in the Dikti database or acknowledged as part of the institution's performance. This is considered a setback, as external researchers in PPH have completed numerous research projects and published in various publications, including international journals. Dikti has offered a solution by providing the opportunity for temporary lecturers to obtain a special national identity number (NIDK). However, the technical guideline and procedure for this offer remains unclear and Unika Atma Jaya is waiting for further developments.

Deputy Rector I 2011–2015 conveyed that Unika Atma Jaya would not open recruitment for non-lecturer researchers without a clear policy from the Government. This position is underpinned by two factors: first, providing career management and development for employees whose status is not supported by a clear basis of regulation would be a complex task for a PTS such as Unika Atma Jaya; and second, Unika Atma Jaya as an employer has a moral obligation to provide career development; recruiting non-lecturer

researchers as permanent staff members without offering a promising career would be unfair. Therefore, contract employment is considered the most suitable hiring scheme at the moment. This is not ideal, as Unika Atma Jaya will not be the proprietor of the research track record or performance. Instead, the ownership remains with the individual researchers.

4.2.2 Research funding

As a private higher education institution, Unika Atma Jaya is established under a foundation, Yayasan Atma Jaya. The foundation is committed to ensuring that Unika Atma Jaya can publish scientifically and can produce quality research. This commitment is evidenced by the foundation's continuous funding support administered by LPPM.

Under LPPM's coordination, funding is channelled as a faculty research funding scheme (limited amount) and university grant scheme (for cross-unit research that may obtain a larger amount of funding). LPPM may also channel a Dikti grant or sponsor funding. The variety of funding schemes shows the commitment of the university's and foundation's leadership to ensuring that research is appropriately funded.

According to 61.3 percent of respondents, there is adequate funding support from the university and foundation to produce quality research (see Chart 27). Although the majority of lecturers agree with this, some lecturers in natural science and medicine conveyed that they often have to 'work around' the provided funding (both faculty and university schemes) considering the high cost of equipment. However, to produce quality research (see Chart 27). Although the majority of lecturers agree with this, some lecturers in natural science and medicine conveyed that they often have to 'work around' the provided funding (both faculty and university schemes) considering the high cost of equipment. However, the lectures also conveyed that funding shortages can be covered by being involved in a Dikti grant program, although its complex administrative procedure is a challenge when accessing Dikti grants. The program's promotion needs to be improved, according to lecturers who rarely take up research due to their focus on teaching.

Even though Yayasan Atma Jaya has never downsized its funding, it has found that the budget has not been fully absorbed. This is due to varied consistency among lecturers in conducting research in a given year, despite research plans being in place (see Chart 28). Another factor is that there are research projects that do not require a significant amount of funding for implementation or data analysis.

Other than funding for research projects, Unika Atma Jaya also has a policy of providing

Chart 27: Research Funding Adequacy from the Institution

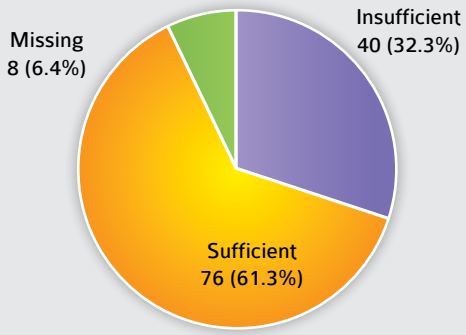
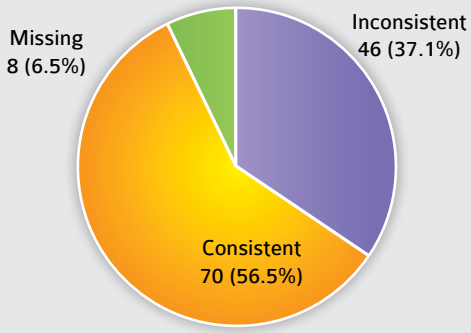


Chart 28: Lecturers' Research Consistency per Year



budget support for researchers to disseminate their findings by presenting at national and international conferences. While participants view this policy positively, and all lecturers may propose a conference budget each year, another policy limits financial support to one national or international conference per year. This policy is seen as a disincentive, especially for productive lecturers, particularly in light of the likelihood of excess budget due to the number of lecturers who do not make use of this funding. At the faculty level, there is discord between how the leadership of different faculties translates this policy, which could be perceived as a form of inequality. Some faculties state the total amount of funding and divide it equally between all lecturers. Some faculties are consistent with university policy and limit conference participation opportunities, but others allow participation in more than one conference as long as the funding is available.

In research centres, there is often a demand to generate profit by optimising sponsor funding. However, according to project-based researchers and the head of PPH, university support to achieve that goal is limited. This has consequences on the quality of the research or publication. The university's emphasis on financial profit overlooks the potential of research centres not only to bring financial gain but also to promote Unika Atma Jaya to the public and enable it to fund research projects conducted by staff members. Assigning a research unit as a profit centre is not uncommon. A senior researcher at PPH mentioned Universitas Gadjah Mada as an example of a university that expressly states its research centres are profit centres, followed with clear support and facilitation.

4.2.3 Research agenda/priority

Formulated by the National Development Planning Agency (Bappenas), the National Research Agenda (ARN) is translated into research agendas of research and development agencies in ministries. Currently, there is no substantial link between research projects in Unika Atma Jaya and ARN, due to lack of effort promoting and communicating, and access to ARN. There is also limited understanding among Unika Atma Jaya lecturers of ARN, as quoted by 74.2 percent respondents. This lack of awareness impacts the selection of research themes that do not, or only vaguely, integrate ARN, although linking a research theme to ARN can be a positive point that may lead to a grant from Dikti or other ministries.

While this situation shows that ARN is poorly disseminated in universities, universities are very rarely involved in the formulation process of ARN. The lack of synergy between government and university research agendas is therefore not surprising.

Although the majority of research projects in Unika Atma Jaya are not linked to ARN, individual lecturers may still be involved in ARN-related projects. One respondent worked on a research project involving the research and development agency of a ministry. The respondent's access to this project came from the respondent's personal network. Therefore, involvement in ARN currently depends on the personal initiative of a lecturer/researcher and has not been exercised systematically by the university.

At the university level, Unika Atma Jaya's research agenda (formulated by LPPM) is cascaded to faculties and lecturers. The dissemination of the agenda needs to be improved. The formulation process does not involve research centres, which reinforces the gap between faculty and research centre research themes.

Unlike faculties that are yet to have a clear focus on research, research centres under Unika Atma Jaya LPPM have unique strengths built by their founders and preserved by their leaders. Focus, track record and a network of centres enable them to develop their reputation and access to ARN. PPH, for example, which regularly organises public discussion events

involving their stakeholders, has become more informed of the HIV/AIDS national research agenda at ministerial level and provincial level. This is an advantage that makes PPH better positioned to access and be involved in available projects.

4.2.4 Human resource and 'career' in research

4.2.4.1 Lecturers' perception towards research competence

Based on the survey of lecturers, 65.3 percent perceive their research competence as inadequate (see Chart 29). This survey does not capture the specific competencies where lecturers feel the need to improve.

Lecturers said the skills required to conduct quality research were more refined than teaching skills. This response was provided by 68.5 percent of respondents, while 24.2 percent disagreed (the rest of the respondents did not provide any response). This reveals a need to enhance the research competence of lecturers. A training program must take into account their teaching obligation/load.

In terms of the competence required to be published in a scientific journal or to present at a scientific conference, most respondents agreed that lecturers who undertake research projects actively are not necessarily able to produce quality articles. Writing an article requires certain conditions – writing skills, time and focus. However, research experience is still perceived as an important tool that contributes to a lecturer's ability to produce sound scientific articles.

Chart 29: Unika Atma Jaya Lecturers' Perception of Research Competence

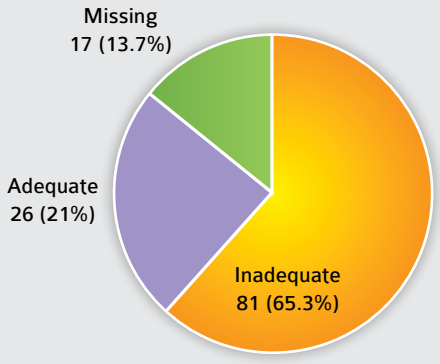
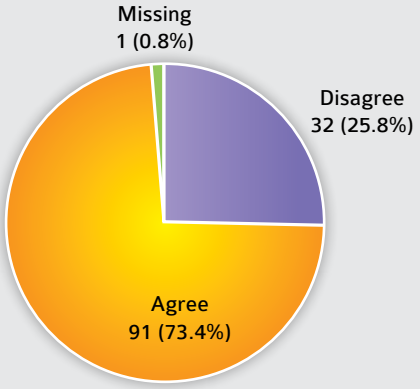


Chart 30: Unika Atma Jaya Lecturers' Perception of Publication Competence Dependency on Research Productivity



4.2.4.2 Efforts to improve research competence

University leadership is aware of the gap in research skills among lecturers. LPPM actively organises training programs to enhance the research competence of lecturers. Proposal writing (in order to be involved in a grant scheme), scientific publication and data processing (quantitative and qualitative) programs are regularly organised, inviting internal and external resource people. However, training programs attracted very few lecturers and some programs had no participants and had to be cancelled.

Participants said there were two factors that hampered the participation of lecturers: first, training would be more effective if delivered in a workshop format, where lecturers could bring their proposals or article drafts for consultation, with continuous feedback being provided until the article was

ready for publication; and second, training schedules usually overlapped with teaching schedules.

As well as training, unit leaders have different strategies to build research skills. Some faculties apply a mentoring system that pairs professors with junior lecturers. This system can be both successful and unsuccessful, as mentoring skills are not necessarily innate in a professor.

4.2.4.3 HR constraints in HIV/AIDS research centre

Similar to other research centres, PPH has a lack of full-time researchers. The cause of this problem can be traced back to 1980s, when the full-time researcher position was removed from Unika Atma Jaya. PPH also finds it difficult to secure the commitment of faculty lecturers as researchers due to their high teaching workload, as discussed earlier. In PPH, the problem with the number of staff is even more crucial, as the centre is very active in managing numerous research projects and networks (see Chart 20 on PPH research performance).

To fulfil its human resource need, PPH recruits contract researchers. This avenue has a number of challenges, mainly in finding competent and experienced researchers who are suitable to PPH research themes. Not only are qualified researchers difficult to find, the remuneration offered by Unika Atma Jaya are not competitive. PPH Unika Atma Jaya has to compete against national and international research institutes, international bodies (e.g. UNICEF) and international non-government organisations. Therefore, PPH recruits senior researchers as part-time staff and junior researchers (usually alumni of the university) as full-time staff, although their skills must be improved to meet PPH's demands.

This arrangement is relatively suitable, even though there are still obstacles. The full-time staff need their capacity enhanced, but the senior researchers who are their mentors are part-time staff. It is therefore challenging to achieve optimum mentoring processes and junior researchers often miss the opportunity to receive intensive guidance from their seniors. In addition, the status of full-time and part-time researchers as contract employees limits their exposure to information from the university and to facilities. Full-time researchers complained about not being able to access libraries and a lack of involvement in university activities. This is unfortunate, as a position in a research centre should be able to attract alumni to work in Unika Atma Jaya. Senior researchers conveyed in less detail that they have limited opportunities to teach and share their knowledge, even though they could make a valuable contribution to students. In terms of limited work facilities, part-time researchers are most affected.

The status of contract employees impacts negatively on recognition of research publication and PPH's performance, as discussed earlier. Without a NIDN, a university is unable to claim proprietorship over research or publication output.

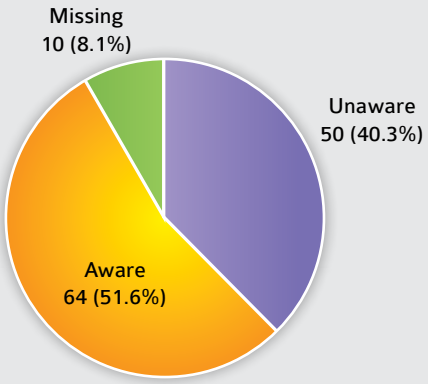
4.2.5 Remuneration and incentive system

There are a number of indicators that show the commitment of Yayasan Unika Atja Maya to providing remuneration and incentives for research. The basic salary and teaching fee system of Unika Atma Jaya has incorporated a Functional Position Level (JJF) component.

As discussed earlier, in its workload computation system, Unika Atma Jaya has incorporated a research/publication component (academic load excess/KBA). Under this system lecturers will not receive fees linked to their additional load if they are unable to demonstrate research or publication performance. The main weakness of this system is the poor data monitoring and verification process to check the data submitted by lecturers.

Other than the KBA policy, Unika Atma Jaya also rewards lecturers who conduct research, and published lecturers. Incentives are provided for scientific papers published nationally and internationally, as well as in popular publications. The amount of incentive is determined based on the type of scientific work and publication. Reputable international scientific journals carry the highest incentive.

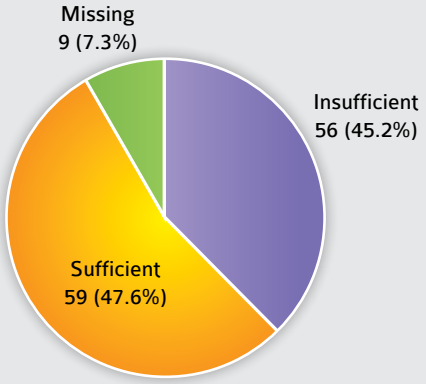
Chart 31: Unika Atma Jaya Lecturers' Awareness on Research and Publication Incentives



The first challenge of this policy is dissemination. It is not widely disseminated among lecturers, especially those who are not active in research. Lecturers stated that they were not fully aware of this incentive program or ways to access it.

In addition to the gap in awareness, some lecturers perceived that the levelling of incentives does not fully reflect researchers' efforts. The perception of the adequacy of publication incentive varies between lecturers. The number of respondents who agree that the incentive is adequate and the number of respondents who disagree are fairly equal (see Chart 32 on research incentives and Chart 33 on publication incentives). A lecturer from a natural science faculty who is also an active researcher conveyed that, in the lecturer's discipline, in order to be published in a leading

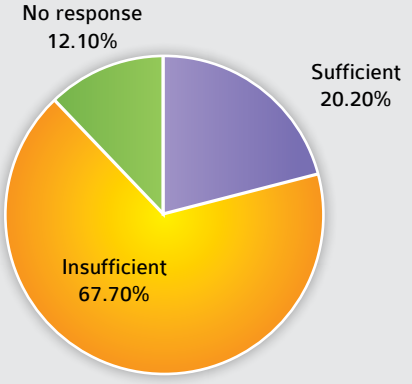
Chart 32: Unika Atma Jaya Lecturers' Perception of Research Incentive Adequacy



international journal, a lecturer has to spend additional money from his or her own pocket to improve the quality of the article and to be published. It is widely known that a number of reputable international journals impose fees on articles to be published. It is in this context that the incentive from Unika Atma Jaya is considered small and unattractive, including when compared to incentives in PTN.

Another issue that was found in Unika Atma Jaya was that incentives for lecturers who obtain sponsored research projects must be split with the university (up to 40 percent of the total project value). This reduces the value of the project. This is usually experienced by individual consultancy research projects, where

Chart 33: Unika Atma Jaya Lecturers' Perception of Research/ Publication Incentive Adequacy

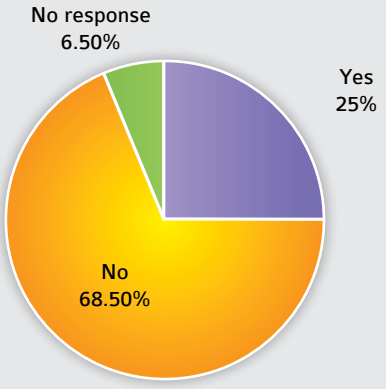


the project's success is determined by the researcher. Credibility and competence are vital, and the 40 percent rate is perceived as too high. Discussions with heads of centres revealed that the share mechanism has caused lecturers to conduct research projects that are not reported to the university, the real value of the project is undisclosed, or lecturers are discouraged from being involved in similar projects.

4.2.6 Credit system

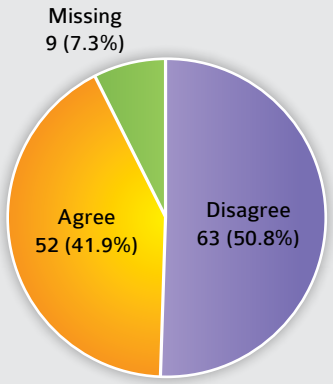
Dikti's regulation on the functional position (JJF) of a lecturer, as discussed earlier, greatly emphasises research and publication activities as a way for a lecturer to develop his or her career. While this regulation ideally drives more lecturers to be active in research and publication, Chart 34 shows that this is not necessarily true for Unika Atma Jaya lecturers. This is likely caused by complex and time-consuming processes of credit computation, documentation and assessment to acquire a functional position. Further, lecturers usually need to go through the process on their own due to a lack of administration staff. The cumbersome administration process has dissuaded lecturers. Chart 35 shows that even though the majority of lecturers (50.8 percent) disagree that JJF prompts an administrative burden, the number of respondents who agree is significant (41.9 percent).

Chart 34: Unika Atma Jaya Lecturers' Perception on the Influence of Functional Position in Driving Research/Publication



The requirement of JJF that a professor must hold a doctorate degree (S3) is problematic for lecturers of Unika Atma Jaya who hold master's degrees (S2) and are already at the rank of senior lecturer. They will not be able to advance to a higher level of functional position and this demotivates them in terms of conducting research and publication.

Chart 35: Unika Atma Jaya Lecturers' Perception of JJF Policy Creating Administrative Burden

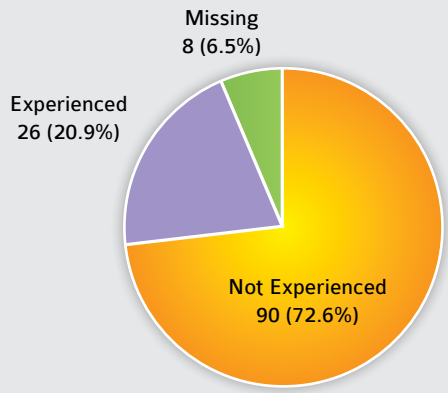


4.2.7 Policy research and publication scheme

Policy research is rare in Unika Atma Jaya (see Chart 36). It is currently conducted only by the HIV/AIDS Research Centre and the Faculty of Law–mainly due to its disciplines and strengths in the area. PPH regularly organises events or series of discussions with policy makers from various institutions to be present as resource people and discuss certain policies. PPH also carries out advocacy and educational activities by preparing one- to two-page briefs. In order to produce quality policy briefs, researchers' capacity in this area must be improved.

Interviews and FGDs revealed a number of causes for the lack of interest in and poor performance of policy research in Unika Atma

Chart 36: Lecturers' Experience in Policy Research/Publication



Jaya. First, in the JJF and Dikti publication incentive systems, the highest score for scientific publication is given to publication in academic journals/events. Consequently, lecturers become focused on conducting research that will qualify to be published in academic journals. Recognition and reward for policy research are not yet visible. It is highly likely that this causes low interest among lecturers to publish policy briefs. In addition, lecturers' skills in research and writing need to be improved. This explains the limited response to PPH's efforts to involve lecturers in a number of discussions and preparation of policy analyses.

Second, the educational focus in Unika Atma Jaya places more emphasis on scientific research instead of policy research; this emphasis manifests in the selection of subjects. With the exception of the graduate program of the Law and Psychology Faculties, policy research as a subject is not taught in any other majors or faculties.

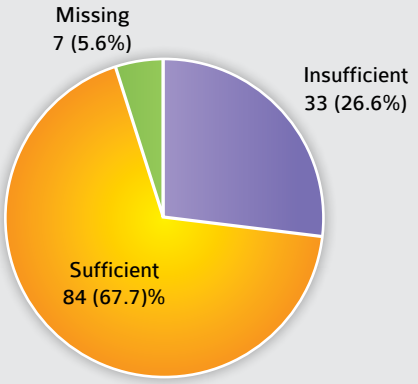
According to a senior researcher in PPH, HIV/AIDS research currently needs more program evaluation research. Many policies and regulations have been passed, but their implementation is not optimum. Advocacy and consultation on policy implementation and research to evaluate programs are needed.

4.2.8 Research management

In general, lecturers in this research perceive that facility support for research is adequate. More than 67 percent of the participants agreed that Unika Atma Jaya had provided sufficient facilities (Chart 37).

However, a significant challenge for lecturers in managing research and publication is administration, for example, financial reporting. This administrative bottleneck causes significant delays in the university's research reporting. Similarly, lecturers involved in Dikti grants complained about financial reporting, administrative documents and document upload. For some lecturers, complicated financial reporting may discourage them from participating in a Dikti grant program.

Chart 37: Facility Adequacy for Lecturers' Research



The varying response among lecturers on this issue is interesting to note. Overall, for lecturers who are not active in research, administrative issues are one of their main barriers to research. The preference for them is to have dedicated, competent administrative staff to assist in managing and navigating the process. However, for lecturers who are active in research, the administrative process is a minor issue. Considering the lack of competent administrative staff, their preference is to manage the process on their own.

The number of administrative staff members

who have the competence to assist proposal preparation, carry out financial management and administer financial reporting is limited. Currently, competent staff are concentrated in PKPM and FK. In these units, administrative staff help the technical process of proposal preparation, data collection and financial reporting. Competent staff contribute to the performance and productivity of the centre and the faculty.

This situation shows that the existing staff focus more on supporting teaching activities and lack an understanding of research needs. A staff member who can hold the position of research manager reflects the individual's motivation and the initiative of leaders to involve them in research activities. The capacity of educational staff therefore needs to be enhanced to improve their understanding of research and enable them to support research activities.

Other than administrative support, the lecturers mentioned the need for a research assistant or manager to help them purchase equipment, schedule data collection, contract partners, etc. Research assistants are not widely available in the university, hence lecturers usually choose their students as assistants.

Several respondents mentioned the need for a writing centre to help with data analysis and to provide feedback on the quality of writing. Unika Atma Jaya currently does not have a writing centre.

4.3 Factors to improving university research performance

Based on research findings, there are a number of key elements that are central to improving research performance in universities.

1. **Improving lecturers' research interests and motivation**

   Lecturers' own interests and motivation for research and publication are vital. This was the distinguishing element that arose in the discussion with lecturers who were active researchers, and the group of lecturers who were not. The different mindsets of the groups led to different perspectives in their views on and how they would address research challenges. Unfortunately, interest and motivation are not widely cultivated in all lecturers in Unika Atma Jaya. The majority of lecturers tend to focus more on teaching, whether it is influenced by personal interests or comes from teaching obligations that can be challenging to manage. According to one of the heads of the research centres, the university has not made research interest and motivation a key criterion of the lecturer recruitment process. Even though these qualities are intrinsic in some lecturers, systematic efforts by the institution are needed to nurture them in others.

   Consistent endeavours to foster an academic climate and atmosphere will drive research and publication interest and motivation in lecturers. Although a number of rules and policies are established to this end, efforts to create an academic climate in Unika Atma Jaya are not yet generating desired results. The commitment and support of the university and faculty leadership are crucial to this process.

   The role of university leaders in growing the interest and motivation of lecturers is important. Examples set by deans and their peers of consistently conducting research will strongly motivate lecturers. This 'lead by example' style of leadership is demonstrated in FTB, which is discussed in detail in section 4.4.1.

2. **Complementary, consistent and transparent government and institutional regulations**

   Policy and regulatory support by the Government and university to strengthen

research/publication in higher education institutions is clear. However, it is undisputable that policies and regulations overlap and lack synergy, while their implementation is not yet consistent or transparent. Monitoring and evaluation of policy and regulation implementation are also weak. Aligned policies and regulations between the Government and universities, as well as consistent and transparent implementation, will lead to a common understanding and standardised research/ publication procedures. Policies on equal and transparent research opportunities afforded to both PTN and PTS need serious attention. The role of PTS in research/ publication must be driven, considering the vast number of PTS. This could contribute to the national performance of publication. At the same time, there is a challenge in terms of gaps in quality between PTS. Clear rules and competitive, selective, transparent and equal schemes between PTN and PTS are required.

3. **Funding support from the university and foundation**

   Foundation and university leaders show their commitment to research by providing funding managed by LPPM. This commitment is reflected in the allocation to research from the university budget which increased in the period 2012 to 2014. Other than funding, foundation and university leaders also need to continuously develop incentive schemes for research and publication. All of these efforts demonstrate the commitment of the university and the foundation to increasing the number and quality of research outputs in Unika Atma Jaya.

4. **Faculty–research centre synergy**

   Faculties and research centres in Unika Atma Jaya have the modality and potential to drive the improvement of research/ publication performance. Faculties are where human resources are pooled; lecturers who are mandated with research and academic publication. Meanwhile, research centres have the track record and networks that allow them to access research projects suitable to their expertise. They also have the support of experienced researchers. Combining the strengths of faculties and research centres will create significant potential to push the performance of research and publication. Researchers in study centres can be given the opportunity to teach and share their knowledge with students and be formally recognised as part of the teaching staff (assigned a lecturer's registration number). They will be tasked with a credit load as determined in their contracts. Lecturers should also be involved in centres' research projects. Postgraduate students who are conducting research for their thesis/dissertation can be involved as junior researchers. These efforts have begun, but there is room for improvement to achieve optimum results.

5. **Research management support**

   Wide-ranging research management support will help alleviate administrative burdens while improving lecturers' research and publication skills. The availability of competent support staff will remove administrative tasks from the lecturers, allowing them more time to focus on research substance. Efforts to improve the competence of lecturers in research and writing are also needed to push their performance.

6. **Research road map**

   A well-defined road map can give researchers in faculties and research centres a clear pathway to move forward. LPPM, as the institution that manages

research and community service activities, needs to promote and disseminate the road map in line with Unika Atma Jaya's vision and mission.

Faculties and research centres can develop their own road map based on their research agenda. Technical support from LPPM to faculties and research centres in terms of funding, proposal preparation, standard procedures or guidelines in proposal submission, to research dissemination are central to research development.

4.4. University and lecturers' best practices to address research barriers

1. **Nurturing academic culture–an example from the Biotechnology Faculty**

   FTB is an example of best practice in nurturing academic culture and driving quality research. As a discipline, Biotechnology requires intensive lab practice, which fosters a strong scientific and research culture. The faculty exercises systematic efforts that other faculties and institutions in Unika Atma Jaya can emulate. FTB dedicates two hours during the day for research and publication related activities, from 07.00 until 09.00. Classes, faculty meetings and other activities are scheduled outside of these hours. The dedicated time gives lecturers the opportunity to focus on their research or writing.

   FTB also integrates teaching and research in a way that enables students to not only learn from textbooks but also through experience, by being involved in their lecturers' research projects. For lecturers, this method helps improve their teaching quality, as the teaching materials they deliver are the materials where their expertise lies and which they identify during research.

   There is a mentoring program for junior lecturers who need to expand their experience and track record. Mentored by senior lecturers, the junior lecturers start by being involved in research projects. Their mentor helps guide them to write for international journals, gaining recognition and experience until they are acknowledged in their field.

   Systematically, faculty leadership also strives to manage limited funding and share it fairly between lecturers. The faculty transparently discloses the amount of funding for research and publication, and at the same time encourages lecturers to utilise the grant program to fulfil funding needs. Encouraged by the faculty, lecturers learn to follow grant rules and are eventually accustomed to them. Despite their responsibilities, faculty leaders continue to be involved in research and publication activities, setting examples for lecturers to follow the same path despite occupying structural positions.

2. **Building research networks**

   Building individual and institutional networks is a strategic step for Unika Atma Jaya as a PTS to open up access to ARN or grant programs outside of Dikti. Individual networks are developed by joining professional associations or certain study groups. Senior lecturers from the Education and Culture Faculty (FPB), for example, join a group that studies school curriculum. The group is often associated with the Ministry of Education and Culture as the think tank that evaluates school curriculum. An example of an institutional network is the series of public discussions conducted by PPH as part of its regular program. This is a platform for PPH to disseminate its research products and invite different stakeholders, for example, Bappenas, the Ministry of Health, the provincial commission for AIDS mitigation, the National Women and Children Protection Commission and international agencies. PPH regularly

invites resource people from national and international institutions. This activity is an effective way to promote the implementation of research to policy or policy advocacy in provincial scope. In addition, PPH becomes informed of ARN and research opportunities.

3. **PPH writing camp and output dissemination to policy makers**

   The PPH writing camp is a writing workshop that focuses on article and policy brief writing skills. Conducted for a number of days, the camp takes place off campus. Senior researchers act as writing mentors for junior researchers. To be eligible to participate, a junior researcher must be ready with an article or policy brief draft. The mentoring is intensive and focused. PPH writing camp is also deemed effective in improving publication performance. At the end of the five-day camp, three articles and seven policy briefs are produced.

   Publishing policy briefs is done by presenting research findings to various stakeholders (donor agencies or policy makers). This is an effort in accountability on the part of PPH to ensure that the public is aware of the impacts of its research. It is also a form of policy advocacy to make research relevant to the audience and is not limited to academic publication that serves a specific readership.

4. **Research management support**

   Best practice in research management support can be found in FK and PKPM. FK has an administrative staff with undergraduate education that is tasked with supporting the faculty research coordinator. The staff member is responsible for evaluating proposal formats and ensuring their consistency with Dikti's grant scheme. The staff also check document completeness and help with financial administration. The research coordinator is able to focus on consultation/advocating the substance of a research proposal. This type of assistance for a research coordinator is not available in other faculties.

   In PKPM, research management is facilitated by staff members who are competent in proposal/report administration and preparing data collection in the field. The staff members are involved from the beginning of a project–from sorting proposals/opportunities, preparing the format or template and proposal documents, acting as liaison with sponsors to address technical issues, preparing and managing logistical aspects of data collection, managing financial administration following sponsors' requirements, and assisting data processing. Having competent staff members has been valuable to the performance of PKPM.

4.5. University and lecturers' expectations and opportunities to improve university research performance

Interviews, group discussions and surveys with lecturers of Unika Atma Jaya capture the expectations of researchers and opportunities to improve research and publication by Indonesian universities:

1. The Integration of the Ministry of Research, Technology and Higher Education is an opportunity to combine the database and policies on research and publication in universities.
2. Research centres in Unika Atma Jaya, with their track record, networks and reputation in specific domains have ample potential to be the engine of research and publication. Clarity of roles, direction and sufficient human resource support are required.
3. The operation and development of postgraduate programs, especially a doctorate program, has the potential to be the force to improve university performance.

Final-year students who are preparing theses and dissertations are potential junior researchers that can contribute to driving research and publication performance.

4. With regard to Unika Atma Jaya's goal to improve the quality and quantity of its publication, the university and the Government need to consider the position of a full-time, permanent researcher in a university with formal employment status and a clear career path. On the part of the university, there needs to be flexible management of teaching and research workload. A lecturer who is also productive in conducting research and authoring published articles should be able to have his/her teaching load reduced. It is important to have a policy on research careers in the university, supported by adequate infrastructure to develop quality research.

5 Discussion

5.1 Teaching-research dichotomy

Study findings show that the teaching-research dichotomy is the main barrier to research performance in Unika Atma Jaya. The fundamental issue is teaching and research management; this should be addressed in ways that would ensure balance between the two key pillars of Tri Dharma so that the activities of both pillars can be equally productive.

As a PTS that significantly relies on tuition fees, which account for 89 percent of income, Unika Atma Jaya today is oriented towards teaching productivity, measured from the rate of graduation. However, the foundation and university leadership are also committed to ensuring that Unika Atma Jaya as an education institution can contribute to advancing knowledge, ideas, thoughts and innovations for the betterment of the people and the nation. Therefore, research needs to be encouraged, while teaching productivity is maintained. In many other universities, teaching-research tension is also the main obstacle to university performance. There are a number of factors that contribute to this situation identified from different aspects, namely government policies, university management practices, and lecturers' competencies.

With respect to government policies, there has been growing demand for better research and publication performance. Lecturers' obligations in these areas are explicitly set forth in various regulations. They are linked to lecturers' incentive schemes and determine the career development of lecturers. However, the policies' substance and implementation quality are not yet optimal. This is evidenced by the lack of alignment (JJF requirements, lecturer certification assessors and holders of high structural positions are exempt from research obligations), consistency (Dikti circular on grant requirements), unrealistic demands (publication requirements and JJF administrative burdens), and lack of transparency (limited access of PTS). Funding schemes and research incentives are also characterised by complicated administrative procedures, small amounts of funding, and program dissemination that only reaches a certain audience. These issues

are significant disincentives for lecturers and their participation in research and publication and create the perception that research and publication are an additional burden to their teaching load.

Another issue in creating teaching-research balance is university management. As a PTS, Unika Atma Jaya supports the implementation of government regulations applicable to universities, and in the effort to do so the university is consequently 'exposed' to regulation-related hurdles. In addition, Unika Atma Jaya has a university policy on lecturers' academic workload, which states research as an obligation (see section 3.1 for detailed discussion). On paper, a non-structural lecturer has to meet a mandatory teaching workload of nine credits–a number that decreases as a lecturer moves to higher structural positions. In practice, teaching demand is far higher than the stipulated number and many lecturers have to perform above their mandatory load. Funding, remuneration and incentive schemes linked to research and publication performance are perceived as unattractive and not well disseminated compared to similar schemes linked to teaching (fees for additional teaching load and exam grading). Support for research management and work facilities is deemed insufficient, and in many cases lecturers have to meet research-related needs on their own–a situation that is vastly different on the teaching side. Teaching management (e.g. setting up a classroom and scheduling) and work facilities are systematically provided by competent support staff. When teaching and research demands intersect, teaching will be favoured, as is the organisational culture in Unika Atma Jaya. This is evident from, for example, the difficulty experienced by lecturers in participating in scientific events on campus (e.g. guest lecturing, research competition seminars, scientific conferences) due to their demanding teaching schedules. Although the university does not intentionally limit its lecturers from carrying out scientific endeavours outside the classroom, the situation suggests ambiguity in the university's commitment to drive research and publication performance and shows the intricacies faced by the university to create equality in teaching and research.

At the individual level (lecturers), balancing and managing teaching and research are genuinely problematic. While some lecturers are interested, internally motivated and competent in research and academic writing, they are outnumbered by lecturers who are not. In the middle of the spectrum, there are lecturers with natural interests and motivation, but who need to improve their skills. For these lecturers, institutional support and mentoring from leaders or senior lecturers are important drivers. Compared to teaching competence, a skillset that lecturers in general already develop, research competence is more challenging to foster–a reason why many lecturers tend to focus on teaching instead. For certain groups of lecturers, the main constraint is workload management and finding the time for research and writing.

One of the factors that can potentially contribute to improving research and publication performance in the university is a research centre. Research centres in Unika Atma Jaya are reasonably mature with sound track records and solid research networks. Over the years, since the university was established in the 1960s, they have consistently focused on research and publication activities in Unika Atma Jaya. When research and publication were mandated to lecturers, the focus on research in faculties grew. At this point, due to organisational culture and management practices that heavily emphasised teaching, faculties have had a stronger and clearer vision on ways forward and resource development (including human resources, funding and facilities) compared to research centres. Meanwhile, the direction, role and involvement of research centres in supporting the growth of research and publication

performance have not been well defined. Consequently, research centres do not receive sufficient resource support. As a result, the potential of research centres has not been optimally leveraged and their untapped track record, networks and reputations have not tangibly contributed to the performance of research and publication.

5.2. Comparison with other studies

The teaching-research dilemma captured in this study is not an isolated issue. De Jonghe (2009), Karagiannis (2009) and Vidal and Mora (2003) conducted secondary data analyses where interviews and surveys were not carried out on policies and practices in various higher education institutions. Their findings show that research-publication and teaching activities often do not align. Their studies affirm that a dynamic management model, which allows for a balance of teaching and research-publication is significantly important, as is bridging the two streams of activities.

Their results of analyses conform to the situation and findings of Unika Atma Jaya. In terms of management, although teaching management is more developed, it has not been used to facilitate and motivate lecturers to conduct quality research and writing. As discussed in section A. Teaching-Research Dichotomy, teaching is prioritised in Unika Atma Jaya, and a lecturer who is interested in research and publication must try to ensure minimal interruption to the teaching schedule. In many cases the rigorous teaching demands make it difficult for lecturers to conduct research or publication.

Addressing the teaching and research-publication dilemma, Karagiannis (2009) proposed a number of recommendations to link the two domains. One recommendation was to incorporate a lecturer's interest in research in teaching. Research-teaching integration enables lecturers to be more time efficient in preparing teaching materials. This is the practice that FTB in Unika Atma Jaya applies, where lecturers can bring their research themes into the classroom. Further, Karagiannis is aware that research-teaching integration would require the curriculum structure to be more flexible. In order to be able to embed any new knowledge gained in research, a continuous update and adjustment in the curriculum would be inevitable. Ideally, instead of rigidly prescribing teaching materials and references, the curriculum needs to be adaptable and open to new knowledge and progress.

Karagiannis (2009) also states the significance of flexible time management for an academic to divide his/her time for research and teaching in one period. This scheme operates in a number of European countries. During one period (e.g. one semester), lecturers allocate their time for research, writing and teaching (e.g. allocate only one day to teach per week and use the other days for research and writing). Their performance is closely monitored. This type of mechanism demands two prerequisites: the autonomy of lecturers to manage their own schedule and rigorous monitoring and evaluation (including in terms of the dissemination of academic papers and policy brief outputs).

To drive research-teaching integration, Karagiannis (2009) also proposes eliminating separate rewards for the individual domain. Instead, institutions need to come up with an innovative way to recognise lecturers' performance in both areas as an integrated aspect. Unika Atma Jaya needs to explore this. The university needs to consider revising the current Atma Jaya Award, which is focused on research, to a platform that integrates research and teaching, and appreciates lecturers who demonstrate aligned teaching-research activities. Teaching-research integration is consistent with an assessment criterion in the accreditation system which evaluates the number of research projects that involve students.

5.3. Limitations

1. **Secondary data comprehensiveness**
   Unika Atma Jaya has a database of academic, financial and human resource information. However, the different databases are not integrated, causing delays in secondary data collection.

2. **Questionnaire distribution**
   The response rate of the questionnaire that we distributed to all lecturers of Unika Atma Jaya was moderate. A number of lecturers preferred not to be involved. This shows that the distribution of written notice (to leadership and participants) was not effective. This could be addressed by organising a meeting with lecturers, however the timeline of this research did not allow for this.

3. **Unika Atma Jaya unique context**
   The findings in this research are drawn from Unika Atma Jaya's unique organisational context and through a case study method. Studies in other universities may reveal similar findings or phenomena, yet exercising caution in using and interpreting data is encouraged, as organisational contexts and the history of different institutions may be highly specific.

6 Conclusion and Recommendations

6.1. Conclusion

1. Study findings show that the Government and the institution are aware of the under-performance of research and publication. They are also aware that the focus on the Tri Dharma is tilted towards the education-teaching pillar, leaving research and publication lagging behind. This answers a basic assumption proposed in this research, that in the context of Unika Atma Jaya, the university has not treated Tri Dharma pillars equally. The education-teaching pillar is still regarded as more important than research or publication.
2. To address the challenges in research and publication, the Government and the institution have issued policies, regulations, procedures and activities as means of improvement. However, these efforts have not been optimum. A number of barriers are identified:
    a. Non-aligned government regulations intended to improve research performance; inconsistent implementation of regulations; and monitoring is weak and lacks transparency. There is also a lack of synergy between government regulations and university policies, resulting in significant teaching demand.
    b. Research funding programs have not been widely disseminated; procedures are deemed complicated.
    c. Lack of conformity between university and government research agenda (ARN); both ARN and the university research agenda have not been widely promoted in their respective scope of audience.
    d. Most lecturers' interest, motivation and competence in research and academic writing lag behind their teaching skills. There are efforts to improve these competencies, but the opportunities have not been optimally utilised due to the lecturers' priority to meet their teaching schedule. Research capacity in research centres is better developed, however research centres struggle with the availability of human

resources and concerns around institutional proprietorship over the scientific output.

e. The research and publication remuneration scheme does not offer high enough funding and has complicated procedures. It is not effective enough to motivate performance.
f. The JJF system that emphasises research and publication has not been effective in driving lecturers' performance. JJF's requirements are deemed difficult to satisfy; the system contains inconsistent and opaque rules and is administratively burdensome.
g. Policy research is a type of research that may produce solutions for national issues. This research, however, is rarely conducted due to the low interest and competencies of lecturers.
h. Comprehensive and professional research management is highly needed for Unika Atma Jaya to divide research and demanding teaching schedules. At the moment, there is no adequate research management support in Unika Atma Jaya.

3. Low research and publication performance is related to institutional barriers. University leadership agrees that this research and other similar studies be submitted to national policy makers.
4. Research findings identify four factors to support university performance: 1) systematic efforts to create an academic culture and atmosphere to drive lecturers' interest and motivation in research; 2) aligned, consistent and clear regulations at government and university level; 3) faculty and research centre synergy; and 4) comprehensive and professional research management support.
5. Other than barriers, a number of best practices and opportunities to improve research performance were also identified: 1) academic culture promoted through commitment of the leadership as role models, and mentoring by professors; 2) individual and systematic institutional network development as strategies to contribute research to policy making and to gain access to research projects and publication; 3) writing camp that drives research publication performance; and 4) sufficient research management support through competent educational staff. Further, this research captures three opportunities and expectations: 1) the integration of the Higher Education General Directorate to the Ministry of Research, Technology and Higher Education is expected to lead to synchronised policies and information on research in universities; 2) research centres with their track record and reputation can contribute to improving research and publication performance; and 3) postgraduate programs, especially doctoral degrees, are prospective pools of human resources of junior researchers conducting their thesis/dissertation research.

6.2 Recommendations

The following recommendations are proposed based on the barriers to research performance in universities, opportunities, best practices and expectations of improvement.

1. Redefine Tri Dharma at national and institutional level.
2. Review and improve a number of policies intended to support research performance, such as:
   a. Establishing a formal mechanism for the position of full-time researcher in universities, which can be filled by lecturers or professional researchers;
   b. Formulating technical guidelines and procedures for the implementation of NIDK, which would open up access for non-lecturer researchers to be formally

registered as a member of staff of a faculty.

3. Level Dikti research grant and incentive schemes, creating specificity between the different levels of the schemes. The schemes should be equally available for PTN and PTS as long as the requirements are met. For example, a scheme designed for junior lecturers whose aim is to build their experience and track record may have different and easier criteria. Another scheme can be designed for senior lecturers or professors, offering sufficient funding for larger scale projects. A similar approach can be applied for a publication grant program.
4. The current Indonesian Science Fund (DIPI) scheme is expected to contribute to this issue. DIPI's success can be replicated for institutional research and not limited to individual research projects.
5. Develop a database that maps the research strengths and expertise of Indonesian PTN and PTS in addition to providing equal research opportunities to Indonesian universities. Dikti often needs direct access to experts of certain themes and a database would allow Dikti to easily engage specific people. As the ministry is increasingly focusing on online systems to manage the data of lecturers and research, the development of the database can start in conjunction with that.
6. Develop a system of cross-cluster institutional development of universities using the same database to improve research and publication performance. Currently, Kemenristekdiki has applied a clustering system to map research capacities of universities and group them into *mandiri, utama, madya,* and *binaan* (independent, advanced, intermediate and elementary). This system should be continued by matching universities from a higher cluster to universities from a lower cluster. A best practice example of this approach is the Competitive Grant Program for the Improvement of Medical Education Quality (PHK-PKPD). Using its database, Dikti identifies similarities of certain characteristics and matches universities with A-accredited Faculties of Medicine with other universities with B/C-accredited Faculties of Medicine in a mentorship program. Dikti also funds a number of activities to enhance education quality (e.g. curriculum development and lecturer mentoring) through a competitive grant program. Another grant program is available to fund the continuity of networking/relationships through activities organised by mentors and mentees. This practice has potential to be replicated nationally to improve research performance.
7. Establish an adequate and robust monitoring system in Unika Atma Jaya to keep track of the academic load excess (KBA) policy to ensure the accuracy of research performance.
8. The Unika Atma Jaya policy on research schemes should be consistent with Dikti's grant program, which requires research projects to be published. This improvement has the potential to increase the number of published papers based on Unika Atma Jaya-funded research.
9. An incentive scheme in Unika Atma Jaya needs to be widely circulated. An incentive scheme for networking or research partnerships that can be linked to research dissemination should be considered.
10. Unika Atma Jaya needs to explore possible non-financial rewards for productive lecturers in research and publication. These lecturers can be individually acknowledged by, for example, providing them the platform to deliver a public lecture.
11. Enhance academic culture and atmosphere in Unika Atma Jaya. Research needs to be prioritised when, for example, it intersects with teaching activities. Teaching loads need to be better managed, especially for

lecturers who are also active researchers despite their demanding teaching schedule.

12. Research and publication performance improvement must involve professors as the highest academic pillar in a university. Unika Atma Jaya leadership will facilitate the dissemination of this research in front of the board of professors to drive the active involvement of professors to accelerate research and publication.
13. Providing sufficient funding for professors to produce quality research and publication as a quick-win strategy.
14. Develop a mentoring system, pairing professors/senior lecturers with junior lecturers. This system is being piloted systematically in Unika Atma Jaya. The scope of mentoring includes teaching, research and publication. Mentors and mentees are prepared, monitored and periodically evaluated. However, it is important to bear in mind that the junior lecturers as mentees need room to grow personally and professionally. Despite being involved in mentorship, a junior lecturer is not required to fully follow his/her mentor.
15. A clear research road map at faculty and individual levels is needed.
16. A clearly defined role and position of research centres is needed. The role of research centres as profit centres is common, an approach that is practiced by UGM, for example. However, this needs to be followed with the provision of sufficient resources and recognition of scientific work that would not only provide financial back up but also ensure quality output.
17. Develop a knowledge management system to accelerate capacity building in research and publication, especially in research centres. The availability of a knowledge management system will allow a junior researcher to quickly learn research and publication processes from senior researchers.
18. Comprehensive and professional research management must be available to support research activities of lecturers. Other than administrative and logistical support in research, a supporting unit focusing on research and publication quality is also important, for example a writing clinic, research methodology consultation service and data processing consultation desk.

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